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FINAL REPORT
COMPREHENSIVE INVENTORY OF
NATURAL ECOLOGICAL COMMUNITIES
IN ALACHUA COUNTY

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1.0 INTRODUCTION

1.1 BACKGROUND

Though the beauty and diversity of Alachua County's native landscapes have been praised for centuries, there has never been a systematic inventory of the county's valuable natural areas. The Florida Natural Inventory (FNAI) maintains a data base on the best sites for the rarest species and communities statewide, but their information on natural areas of local importance is spotty. General land use maps show the distribution of the major ecosystems and detailed habitat maps have been prepared for Paynes Prairie, San Felasco Hammock, Oleno State Park, and other existing preserves. Wetlands have been mapped and given variable and debatable amounts of legal protection. But upland communities like sandhills, hammocks, and flatwoods have been heretofore documented only in a piecemeal fashion.

The study reported here was undertaken to provide information on important upland sites as a background for county comprehensive planning. The Alachua County Department of Planning and Development needed information on ecological communities to complete the Conservation Element of the county's Comprehensive Plan and to assist the Alachua County Conservation and Recreation Areas Task Force (ACCARATF) in greenbelt planning. County officials felt more or less satisfied with their knowledge of wetlands and the regulatory means for protecting them, but were disturbed by lack of an information base on upland ecosystems. The county therefore applied for and received a small grant from the Florida Department of Community Affairs (DCA) and contracted KBN Engineering and Applied Sciences, Inc. to conduct a "Comprehensive Inventory of Ecological Communities" for Alachua County" concentrating on upland ecosystems in need of protection.

The tasks required in the Scope of Services for this contract have been addressed as follows:

- I.A. We reviewed the FNAI classification. Its applicability to Alachua County is discussed in Section 2.1.
- I.B. The classification system presented in Table 2.1. was developed as the framework for this inventory.
- II. A. We evaluated the goal, objectives, policies, standards, and ranking criteria identified in the fourth draft of the updated Conservation Element of the Comprehensive Plan. Section 7.0 relates our recommendations to the provisions of the Comprehensive Plan. Two of our study team members were former FNAI personnel and they made every effort to see that our work would mesh well with FNAI's procedures. FNAI will receive a copy of the final report with annotated updates to the Element Occurrence Records.
- III.A. Section 1.3 describes the methods we used for identifying and reviewing existing data sources.
- III.B. We reviewed 1:24,000 color infrared aerial photography as discussed in Section 1.3.
- III.C. We conducted an aerial overflight as mentioned in Section 1.3.
- III.D. We conducted on-the-ground field surveys of all areas that appeared on the infrared aerials as natural uplands greater than approximately 100 acres in size. This is discussed in Section 1.3.
- IV. We mapped all Significant Upland Ecological Communities on USGS 7.5 minute topographic maps. We decided that the maps would be easier to use if the natural community names were written directly on the map, rather than coded and keyed. The names used are consistent with the classification.

1.2 RATIONALES

A clear understanding of the working definitions used for several basic concepts is essential to proper interpretation of this study:

- 1) "Upland" - The layman typically thinks of uplands as high, dry ground. The ecologist often equates the terms "upland" and "terrestrial", loosely regarding a terrestrial community as one that is not water-logged or flood-prone. For this study, we have stretched the definition a bit further, incorporating any community that does not consistently meet legal criteria for protection as a wetland. Hence we include Floodplain Forest, Baygall, Seepage Slope, Wet Flatwoods, and Hydric Hammock, which are all systems which would be classified as wetlands from a purely ecological viewpoint. They are all frequently flooded or saturated and support plant species which would not grow on dry sites.
- 2) "Ecological Community" - An ecological community is an integrated association of plants and animals adapted to and dependent upon a particular environment. "Natural community" means the same thing. "Habitat" is sometimes used interchangeably, but more precisely refers to the environment required by a particular species.
- 3) "Natural" - In the purest sense, a natural area is one that has maintained native species and unaltered ecological processes without being affected by man. In reality, there is no longer any such thing. Practically every place in Florida has experienced some logging, grazing, hunting, burning, or fire suppression. Expanses of wilderness are now fragmented by roads and fields. Important species have become rare or extinct. Foreign plants and animals have invaded.

The Florida Division of Recreation and Parks evaluates naturalness in terms of how closely a habitat resembles how it was when Ponce

deLeon arrived. For purposes of this study, we have judged it in relation to the potential for restoration to and long-term maintenance in a condition akin to that of Ponce deLeon's time.

- 4) "Protection" - We have operated under the premise that protection means very different things in different situations. We have been cautious to recommend measures sufficient to maintain the resource without advocating unnecessary acquisitions or restrictions. Some of the tracts we have evaluated are so pristine and sensitive that they should be used only as carefully monitored nature preserves. Others could incorporate active recreation complexes or cluster developments. We have also included neighborhoods that are largely developed or committed to development and need only provisions for long-term maintenance of wildlife habitat. The Resource Protection Evaluation in Chapter 7 examines various alternatives for protecting different types of sites and relates these strategies to the provisions of the Conservation Element of the county's Comprehensive Plan.

It is important to remember that the purpose of this study was to provide expert ecological input for the planning process. This report is not a plan! It supplies information on the biological resources which must be taken into account in planning. Considerations regarding financial resources, recreational needs, landowner rights, development patterns, and a myriad of other related topics must be analyzed in order to formulate an actual plan for the protection of Alachua County's ecological communities.

1.3 METHODS

Our first assignment was to develop an ecological community classification system compatible with FNAI's to serve as a framework for our inventory efforts. We were able to accomplish this by simply adapting the natural community classification FNAI uses, deleting communities that do not occur in Alachua County, combining those that are not distinctly different in this

region, and removing species that are not common here from the lists of characteristic species used to define the communities.

We prepared lists of plant species expected to occur in each upland community in Alachua County from the draft lists compiled for KBN's ECOFILE software. Linda Duever developed these lists from species lists for Element Abstracts prepared for The Nature Conservancy, articles written for the Palmetto, and materials assembled for her forthcoming book, Natural Florida: A Guide to Ecosystems, supplemented with information from hundreds of additional references and field surveys.

Faced with the task of finding the best natural uplands within a 570,880-acre landscape, we initially screened out areas on the assumption that bigger is better, knowing that larger tracts generally have better prospects for longterm viability. Bob Simons went over 1986 1:24,000 infrared aerial photographs of the entire county with John Hendrix of the Alachua County Department of Environmental Services. Drawing on their familiarity with the county, they identified sites greater than 50 acres that appeared to be natural uplands and marked them on a set of 1:24,000 USGS topographic quadrangle maps. Bob then field surveyed these sites and prepared site record forms (Appendix 9.1) and through telephone contact and preliminary species lists describing each of the upland communities on each site.

Meanwhile, we solicited input from local conservationists and biologists by mailing out and posting letters (Appendix 9.1) making telephone calls explaining the purposes of our study and inviting suggestions as to sites that should be considered.

We searched the FNAI files and transferred data on the locations of rare species and communities onto a second set of quad sheets, overlaying this information with the boundaries of the field surveyed sites. We then requested printouts of FNAI's Element Occurrence Records, field surveys, and

other relevant information for all areas in the vicinity of our field survey sites.

We looked up pertinent-sounding references mentioned in the FNAI files and asked several experts to recommend relevant literature, but we did not find literature search to be a worthwhile data-gathering technique for site specific information. The reports and publications we found typically gave greater detail than we needed on specific aspects of individual sites, most of which were already developed, severely fragmented, or difficult to locate from the information supplied.

The most promising reports we encountered were the "Green Plan Inventory" and "Open Space and Recreation Plan" prepared in 1973 by the North Central Florida Regional Planning Council. We went to the NCFRPC offices and reviewed the unpublished descriptions of the sites listed in the Green Plan, but even these did not tell us much that we did not already know.

As field survey forms, species data, reports, site recommendations, etc., came into the office, a file was begun on each site. Information on places that did not appear to have natural upland ecosystems was set aside (Appendix 9.3). The remaining sites were screened at a meeting of the entire project staff. Those deemed to be unimportant were pulled out and those too fragmented to be considered as potential preserves but still valuable as habitat were placed into a special group. The remainder went through the full priority ranking process.

Additional research was done to flesh out information on the sites that came out in the top dozen after preliminary ranking. Additional field trips were made so that all project team members had the opportunity to see each of these places first hand. An overflight was made to look at them from the air and examine their landscape relationships.

Site record reports were prepared to describe each site (Section 3.0). Ownership data for these reports was taken from the 1986 county plat map. The boundaries were drawn on quad sheets with solid lines indicating approximate ecological boundaries or property lines that closely parallel them. Areas preliminary where boundary definition will require more detailed study and/or decisions based on non-ecological criteria were marked with dashed lines. The maps were annotated with other relevant locational information.

Final ranking procedures are described in Chapter 6.0.

1.4 ACKNOWLEDGEMENTS

Dozens of individuals and organizations contributed to this project. Those named below were particularly helpful:

The Florida Natural Areas Inventory was invaluable in supplying data on rare species and communities.

John Hendrix and Mike Campell of the Alachua County Department of Environmental Services were extremely helpful, providing aerial photos, files, advice, field access assistance, and an airplane for the aerial survey.

Karla Brandt of Florida Defenders of the Environment prepared mailing labels so that we could send data solicitation letters to FDE's entire list of local environmental experts.

Kristin Brugger gave us leads on sources of data from previous inventory attempts.

Florida State Museum staff members, including Steve Humphrey, Fred Thompson, David Hall, and Dick Franz, answered numerous questions.

Florida Game and Fresh Water Fish Commission personnel suggested sites and helped us with field survey access. Bill Frankenberger, Steve Nesbitt, and Paul Moler were especially helpful. Bill Kinser and Latane Donelin of the Alachua County Department of Planning and Development facilitated the project in many ways, promptly supplying maps and information as we needed them.

Scott McCann of KBN adapted a Lotus 1-2-3 application for the computerized ranking procedures. KBN staff members Herb Platt and Robin Hart provided additional information and assistance. Lisa Spinella, DeRonda Tuck, and Mary Buff produced the final report. Curt Pollman rescued us when the computer threatened to swallow the report.

2.0 NATURAL COMMUNITIES

2.1 CLASSIFICATION

Table 2.1 outlines the natural community classification we used as the framework for this study. It is essentially the same as the natural community classification used by the Florida Natural Areas Inventory with a few minor changes to enhance applicability to Alachua County.

Specifically, we lumped Upland Mixed Forest, Prairie Hammock, and Rockland Hammock into Mesic Hammock and incorporated Bottomland Hardwood Forest into Hydric Hammock. We deleted Dry Prairie, ("Grassy Scrub" in the Comprehensive Plan,) because we could find no such sites genuinely intermediate between flatwoods and wet prairie that were not strongly influenced by human use.

2.2 FLORA

The lists (Table 2.2) that follow give plant species expected to occur in the Alachua County natural communities we inventoried. These should be regarded as preliminary checklists. Since data on the habitat requirements of many native plants is incomplete and our budget permitted only brief field surveys, compilation of comprehensive species lists was impossible. And, natural variability is such that even the best sites should not be expected to have every plant on the habitat list.

SCRUB

Shrubs:

sand live oak *Quercus geminata*
Chapman's oak *Quercus chapmanii*
myrtle oak *Quercus myrtifolia*
saw palmetto *Serenoa repens*
rosemary *Ceratiola ericoides*
fetterbush *Lyonia ferruginea*
shiny blueberry *Vaccinium myrsinites*
sandhill prickly pear *Opuntia humifusa*
wild olive *Osmanthus americanus*
garberia *Garberia heterophylla*
tough bumelia *Bumelia tenax*
flag pawpaw *Asimina obovata*
staggerbush *Lyonia fruticosa*
huxklwweey *Fyluaaxi* app.
shiny lyonia *Lyonia lucida*

Vines:

scrub briar *Smilax auriculata*
muscadine *Vitis rotundifolia*

Herbs:

gopher apple *Licania michauxii*

Chapman's goldenrod *Solidago chapmanii*
palafoxia *Palafoxia feayi*
silkleaf goldenaster *Pityopsis graminifolia*
scrub dayflower *Commelina erecta*
dog tongue *Eriogonum tomentosum*
rose rush *Lygodesmia aphylla*
summer farewell *Dalea pinnata*
queen's delight *Stillingia sylvatica*
lady lupine *Lupinus villosus*
honeycomb head *Baldvinia angustifolia*
sandhill blazing star *Liatris tenuifolia*
sunbonnets *Chaptalia tomentosa*
lavender paintbrush *Carphephorus corymbosus*
cottonweed *Froelichia floridana*
scrub rockrose *Helianthemum nashii*
dog fennel *Eupatorium capillifolium*

SCRUB, Continued

Grasses and Grasslikes:

wiregrass *Aristida stricta*
scrub rush *Rhynchospora megalocarpa*
Florida bluestem *Andropogon floridanus*
soft-stem panicum *Dicanthelium sabulorum*

Mosses and Lichens:

reinder moss *Cladonia* spp.

SANDHILL

Trees:

longleaf pine *Pinus palustris*
turkey oak *Quercus laevis*
bluejack oak *Quercus incana*
sand post oak *Quercus margaretta*
persimmon *Diospyros virginiana*
slash pine *Pinus elliottii*
sand live oak *Quercus geminata*

Shrubs:

sparkleberry *Vaccinium arboreum*
shining sumac *Rhus copallina*
runner oak *Quercus pumila*
creeping live oak *Quercus minima*
saw palmetto *Serenoa repens*
dwarf blueberry *Vaccinium myrsinites*
sandhill prickly pear *Opuntia humifusa*
polecat bush *Asimina incarna*
deerberry *Vaccinium stamineum*
longleaf pawpaw *Asimina longifolia*
beauty berry *Callicarpa americana*
rosemary *Ceratiola ericoides*
garberia *Garberia heterophylla*

Vines:

scrub briar *Smilax auriculata*
muscadine *Vitis rotundifolia*
butterfly pea *Centrosema virginianum*
milk pea *Galactia elliottii*
sawbriar
Smilax glauca
coral greenbriar *Smilax walteri*

Herbs:

partridge pea *Cassia fasciculata*
dog tongue *Eriogonum tomentosum*
queen's delight *Stillingia sylvatica sylvatica*
gopher apple *Licania michauxii*
sandhill croton *Croton argyranthemus*
bracken *Pteridium aquilinum*
tread-softly *Cnidioscolus stimulosus*

SANDHILL, Continued

blackroot *Pterocaulon pchnostachyum*
greeneyes *Berlandiera subacaulis*
sandhill blazing star *Liatris tenuifolia*
dog fennel *Eupatorium capillifolium*
sticky dog fennel *Eupatorium compositifolium*
daisy fleabane *Erigeron strigosus*
sand blackberry *Rubus cuneifolius*
poison oak *Rhus toxicodendron*
silkleaf goldenaster *Pityopsis graminifolia*
camphorweed *Heterotheca subaxillaris*
blue pea *Clitoria mariana*
Adam's needle *Yucca filamentosa*
lavender paintbrush *Carphephorus corymbosus*
honeycomb head *Balduina angustifolia*
sensitive briar *Schrankia microphylla*
sandhill milkweed *Asclepias humistrata*
butterflyweed *Asclepias tuberosa*
dotted horsemint *Monarda punctata*
white-topped aster *Aster tortifolius*
roserush *Lygodesmia aphylla*
rayless sunflower *Helianthus radula*
indigo *Indigofera caroliniana*
sandhill Indian plantain *Arnoglossum floridanum*
white beard tongue *Penstemon multiflorus*
elephant's foot *Elephantopus* spp.
showy crocalaria *Crotalaria spectabilis*
sandhill hoary pea *Tephrosia chrysophylla*
wild petunia *Ruellia caroliniana*
sandhill beggar-tick *Desmodium strictum*
goat's rue *Tephrosia virginiana*
summer farewell *Dalea pinnata*
lady lupine *Lupinus villosus*
alicia *Chapmannia floridana*
puckroot *Psoralea canescens*
coontie *Zamia* spp.

Grasses and Grasslikes:

wiregrass *Aristida stricta*
splitbeard bluestem *Andropogon tenarius*
hair sedge *Bulbostylis cilatifolia*
lopsided Indian grass *Sorghastrum nutans*
beaked panicum *Panicum anceps*

Mosses and Lichens:

reindeer moss *Cladonia* spp.

XERIC HAMMOCK

Trees:

sand live oak *Quercus geminata*
turkey oak *Quercus laevis*
live oak *Quercus virginiana*
pignut hickory *Carya glabra*
sand post oak *Quercus margaretta*
southern red oak *Quercus falcata*
laurel oak *Quercus hemisphaerica*
magnolia *Magnolia grandiflora*
redbay *Persea borbonia*
American holly *Ilex opaca*
wild olive *Osmanthus americanus*
black cherry *Prunus serotina*
myrtle oak *Quercus myrtifolia*
Chapman's oak *Quercus chapmanii*
mockernut hickory *Carya tomentosa*
bluff oak *Quercus austrina*
flowering dogwood *Cornus florida*
sourgum *Nyssa sylvatica*
persimmon *Diospyros virginiana*
longleaf pine *Pinus palustris*
loblolly pine *Pinus taeda*
laurel cherry *Prunus caroliniana*
water oak *Quercus nigra*
southern red cedar *Juniperus silicicola*
witch hazel *Hamamelis virginiana*
sweetleaf *Symplocos tinctoria*
devil's walkingstick *Aralia spinosa*

Shrubs:

fetterbush *Lyonia ferruginea*
saw palmetto *Serenoa repens*
sparkleberry *Vaccinium arboreum*
gum bumelia *Bumelia lanuginosa*
deerberry *Vaccinium stamineum*
shining sumac *Rhus copallina*
beautyberry *Callicarpa americana*
small-flowered pawpaw *Asimina parviflora*
indigo bush *Amorpha fruticosa*
Carolina holly *Ilex ambigua*
highbush blueberry *Vaccinium corymbosum*
dangleberry *Gaylussacia frondosa*
coral bean *Erythrina herbacea*
hogplum *Ximenia americana*

XERIC HAMMOCK, Continued

yaupon Ilex vomitoria
rusty blackhaw Viburnum rufidulum
Sebastian bush Sebastiana ligustrina
sandhill prickly pear Opuntia humifusa

Vines:

muscadine Vitis rotundifolia
Carolina jessamine Gelsemium sempervirens
scrub briar Smilax auriculata
cross vine Bignonia capreolata
milk pea Galactia elliottii
sawbriar Smilax glauca
catbriar Smilax bona-nox
sarsaparilla vine Smilax pumila
coral honeysuckle Lonicera sempervirens

Herbs:

bracken Pteridium aquilinum
partidgeberry Mitchella repens
coontie Zamia pumila
squawroot Conopholis americana
Indian pipes Monotropa uniflora

Grasses and Grasslikes:

scrub rush Rhynchospora megalocarpa
tall nutgrass Scleria triglomerata

Epiphytes:

resurrection fern Polypodium polypodioides

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UPLAND PINE FORESTTrees:

longleaf pine *Pinus palustris*
loblolly pine *Pinus taeda*
red oak *Quercus falcata*
mockernut hickory *Carya tomentosa*
bluejack oak *Quercus incana*
blackjack oak *Quercus marilandica*
post oak *Quercus stellata*
black cherry *Prunus serotina*
persimmon *Diospyros virginiana*
flowering dogwood *Cornus florida*
sweetgum *Liquidambar styraciflua*
sourgum *Nyssa sylvatica*
sand post oak *Quercus margaretta*
turkey oak *Quercus laevis*
water oak *Quercus nigra*
live oak *Quercus virginiana*
laurel oak *Quercus hemisphaerica*

Shrubs:

chinquapin *Castanea pumila*
gallberry *Ilex glabra*
runner oak *Quercus pumila*
summer hawthorn *Crataegus flava*
dwarf huckleberry *Gaylussacia dumosa*
dangleberry *Gaylussacia frondosa*
shining sumac *Rhus copallina*
deerberry *Vaccinium stamineum*
beautyberry *Callicarpa americana*
northern buckthorn *Rhamnus caroliniana*
saw palmetto *Serenoa repens*
coral bean *Erythrina herbacca*
hercules club *Zanthoxylum clava-herculis*
wax myrtle *Myrica cerifera*

Vines:

Carolina jessamine *Gelsemium sempervirens*
sawbriar *Smilax glauca*
muscadine *Vitis rotundifolia*
summer grape *Vitis aestivalis*

UPLAND PINE FOREST, ContinuedHerbs:

sweet goldenrod *Solidago odora*
sensitive plant *Cassia nictitans*
goat's rue *Tephrosia virginiana*
queen's delight *Stillingia sylvatica*
butterflyweed *Asclepias tuberosa*
dog fennel *Eupatorium capillifolium*
elephant's foot *Elephantopus* spp.
blazing star *Liatris* spp.
sandhill croton *Croton argyranthemus*
pineland foxglove *Aureolata pectinata*
pinewoods aster *Aster adnatus*
white-topped aster *Aster tortifolius*
shining aster *Aster walteri*
pencil flower *Stylosanthes biflora*
bracken *Pteridium aquilinum*
poppy mallow *Callirhoe papaver*
dog tongue *Eriogonum tomentosum*
sandhill Indian plantain *Arnoglossum floridanum*
blackroot *Pterocaulon pchnostachyum*
poison oak *Rhus toxicodendron*
summerfarewell *Dalea pinnata*
blue pea *Clitoria mariana*
gopher apple *Licania michauxii*
sandblackberry *Rubus cueifolius*
coontie *Zamia* spp.
lavender paintbrush *Carphephorus corymbosus*
rayless sunflower *Heliathus radula*

Grasses and Grasslikes:

wiregrass *Aristida stricta*
broomsedge *Andropogon virginicus*

MESIC HAMMOCK

Trees:

laurel oak *Quercus hemisphaerica*
pignut hickory *Carya glabra*
magnolia *Magnolia grandiflora*
hophornbeam *Ostrya virginiana*
sweetgum *Liquidambar styraciflua*
sugar maple *Acer saccharum*
devil's walkingstick *Aralia spinosa*
ironwood *Carpinus caroliniana*
sugarberry *Celtis laevigata*
redbud *Cercis canadensis*
flowering dogwood *Cornus florida*
persimmon *Diospyros virginiana*
American holly *Ilex opaca*
red cedar *Juniperus virginiana*
red mulberry *Morus rubra*
wild olive *Osmanthus americanus*
redbay *Persea borbonia*
spruce pine *Pinus glabra*
loblolly pine *Pinus taeda*
laurel cherry *Prunus caroliniana*
black cherry *Prunus serotina*
bluff oak *Quercus austrina* swamp
chestnut oak *Quercus michauxii*
water oak *Quercus nigra*
live oak *Quercus virginiana*
cabbage palm *Sabal palmetto*
boxelder *Acer negundo*
white ash *Fraxinus americana*
sweetleaf *Symplocos tinctoria*
basswood *Tilia americana*
winged elm *Ulmus alata*
Florida elm *Ulmus floridana*
sourgum *Nyssa sylvatica*
Hercules' club *Zanthoxylum clava-herculis*
red mulberry *Morus rubra*
soapberry *sapindus marginatus*

Shrubs:

beautyberry *Callicarpa americana*
gum bumelia *Bumelia lanuginosa*
Carolina holly *Ilex ambigua*

MESIC HAMMOCK, Continued

sparkleberry *Vaccinium arboreum*
wax myrtle *Myrica cerifera*
saw palmetto *Serenoa repens*
small-flowered pawpaw *Asimina parviflora*
stiff-cornel dogwood *Cornus foemina*
coral bean *Erythrina herbacea*
strawberry bush *Euonymus americanus*
yaupon *Ilex vomitoria*
needle palm *Rhapidophyllum hystrix*
Walter viburnum *Viburnum obovatum*
wild plum *Prunus americana*
flatwoods plum *Prunus umbellata*
buckthorn *Sageretia minutiflora*
hogplum *Ximenia americana*
blue palmetto *Sabal minor*
highbush blueberry *Vaccinium corymbosum*
laurel cherry *Prunus caroliniana*
fringetree *Chionanthus virginicus*
redbuckeye *Aesculus pavia*
deerberry *Vaccinium stamineum*
southern arrowwood *Viburnum dentatum*
possum haw *Ilex decidua*
Godfrey's privet *Forestiera godfreyi*

Vines:

Virginia creeper *Parthenocissus quinquefolia*
Carolina jessamine *Gelsemium sempervirens*
poison ivy *Toxicodendron radicans*
muscadine *Vitis rotundifolia*
summer grape *Vitis aestivalis*
catbriar *Smilax bona-nox*
sarsaparilla vine *Smilax pumila*
scrub briar *Smilax auriculata*
laurelleaf greenbriar *Smilax laurifolia*
trumpet creeper *Campsis radicans*
cross vine *Bignonia capreolata*
creeping cucumber *Melothria pendula*
climbing hydrangea *Decumaria barbara*
coral honeysuckle *Lonicera sempervirens*
supplejack *Berchemia scandens*
yellow passionflower *Passiflora lutea*
southern dewberry *Rubus trivialis*
virgin's bower *clematis virginiana*

MESIC HAMMOCK, Continued

Herbs:

partridgeberry *Mitchella repens*
purple elephant's foot *Elephantopus nudatus*
netted chain fern *Woodwardia areolata*
bracken *Pteridium aquilinum*
wild petunia *Ruellia caroliniana*
dichondra *Dichondra carolinensis*
green dragon *Arisaema dracontium*
jack-in-the-pulpit *Arisaema triphyllum*
giant ironweed *Veronia gigantea*
bedstraw *Galium bermudense*
small-flowered Spanish needles *Bidens bipinnata*
longspike musky mint *Hyptis mutabilis*
iresine *Iresine diffusa*
bearfoot sunflower *Polymnia uvedalia*
widespread maiden fern *Thelypteris normalis*
valerian *Valeriana scandens*
southern lady fern *Athyrium felix-femina*
little ebony spleenwort *Asplenium resile*
dayflower *Commelina* spp.
Florida violet *Viola affinis*
Walter's violet *Viola walteri*
dropseed *Tovara virginiana*
rouge plant *Rivina humilis*
hammock ground-cherry *Physalis carpenteri*
grape fern *Botrychium* spp.
Canadian snakeroot *Sanicula canadensis*
Indian pipes *Monotropa uniflora*
guinea hen weed *Petiveria alliacea*
white ageratum *Ageratina jucunda*
ebony spleenwort *Asplenium platyneuron*

Grasses and Grasslikes:

woodsgrass *Oplismenus setarius*
tall nutgrass *Scleria triglomerata*
shiny chasmanthium *Chasmanthium nitidum*
wet woods panicum *Dichanthelium commutatum*
furry hammock sedge *Carex dasycarpa*
blackseed needlegrass *Stipa avenacea*
blackedge sedge *Carex nigromarginata*
nimbleweed *Muhlenbergia schreberi*

MESIC HAMMOCK, Continued

Epiphytes:

Spanish moss Tillandsia usneoides
resurrection fern Polypodium polpodiodes
ball moss Tillandsia recurvata
red needleleaf airplant Tillandsia setacea
greenfly orchid Epidendrum conopseum
serpent fern Phlebodium aureum
grey needleleaf airplant Tillandsia bartramii

SLOPE FOREST

Trees:

magnolia *Magnolia grandiflora*
spruce pine *Pinus glabra*
beech *Fagus grandiflora*
laurel oak *Quercus hemisphaerica*
pignut hickory *Carya glabra*
sugar maple *Acer barbatum*
basswood *Tilia americana*
American holly *Ilex opaca*
red cedar *Juniperus silicicola*
sweetgum *Liquidambar styraciflua*
hophornbeam *Ostrya virginiana*
white ash *Fraxinus americana*
swamp chestnut oak *Quercus michauxii*
live oak *Quercus virginiana*
flowering dogwood *Cornus florida*
sweetleaf *Symplocos tinctoria*
sourgum *Nyssa sylvatica*
loblolly pine *Pinus taeda*
American elm *Ulmus american*
ironwood *Carpinus caroliniana*
sugarberry *Celtis laevigata*
red mulberry *Morus rubra*
persimmon *Diospyros virginiana*
redbud *Cercis canadensis*
water oak *Quercus nigra*
red maple *Acer rubrum*
sweetbay *Magnolia virginiana*
boxelder *Acer negundo*

Shrubs:

strawberry bush *Euonymus americanus*
stiff-cornel dogwood *Cornus foemina*
wax myrtle *Myrica cerifera*
southern arrowwood *Viburnum scabrellum*
Walter viburnum *Viburnum obovatum*
pink azalea *Rhododendron serrulatum*
witch hazel *Hamamelis virginiana*
laurel cherry *Prunus caroliniana*
red buckeye *Aesculus pavia*
blue palmetto *Sabal minor*
needle palm *Rhaphidophyllum hystrix*

SLOPE FOREST, Continued

coral bean *Erythrina herbacea*
beautyberry *Callicarpa americana*
sebastian bush *Sebastiana fruticosa*
fringetree *Chionanthus virginicus*
flatwoods plum *Prunus umbellata*
dwarf thorn *Crataegus uniflora*

Vines:

catbriar *Smilax bona-nox*
sarsaparilla vine *Smilax pumila*
poison ivy *Toxicodendron radicans*
Virginia creeper *Parthenocissus quinquefolia*
trumpet creeper *Campsis radicans*
summer grape *Vitis aestivalis*
Carolina jessamine *Gelsemium sempervirens*
climbing hydrangea *Decumaria barbara*

Herbs:

partridgeberry *Mitchella repens*
Christmas fern *Polystichum acrostichoides*
Walter's violet *Viola walteri*
green dragon *Arisaema dracontium*
jack-in-the-pulpit *Arisaema triphyllum*
elephant's foot *Elephantopus* spp.
Canadian snakeroot *Sanicula canadensis*
netted chain fern *Woodwardia areolata*
bearfoot sunflower *Polymnia uvedalia*
lopseed *Phryma leptostachya*

Grasses and Grasslikes:

river cane *Arundinaria tecta*
woodsgrass *Oplismenus setarius*
spikegrass *Chasmanthium* spp.

MESIC FLATWOODS

Trees:

longleaf pine *Pinus palustris*
slash pine *Pinus elliottii*
loblolly pine *Pinus taeda*

Shrubs:

saw palmetto *Serenoa repens*
fetterbush *Lyonia ferruginea*
live oak *Quercus virginiana*
laurel oak *Quercus virginiana*
staggerbush *Lyonia fruticosa*
gallberry *Ilex glabra*
wax myrtle *Myrica cerifera*
wicky *Kalmia hirsuta*
huckleberry *Gaylussacia* spp.
scrub blueberry *Vaccinium myrsinites*
shiny lyonia *Lyonia lucida*
red chokeberry *Aronia arbutifolia*
tarflower *Befaria racemosa*
flatwoods pawpaw *Asimina reticulata*

Vines:

muscadine *Vitis rotundifolia*
Carolina jessamine *Gelsemium sempervirens*

Herbs:

grassleaf goldenaster *Heterotheca graminifolia*
vanilla leaf *Carphephorus odoratissimus*
meadow beauty *Rhexia* spp.
trilisa *Carphephorus paniculata*
wild bachelor's button *Polygala nana*
candyweed *Polygala lutea*
Virginia chain fern *Woodwardia virginiana*

Grasses and Grasslikes:

wiregrass *Aristida stricta*
scrub rush *Rhynchospora megalocarpa*
maidencane *Panicum hemitomon*

SCRUBBY FLATWOODS

Trees:

longleaf pine *Pinus palustris*
slash pine *Pinus elliottii*
loblolly pine *Pinus taeda*

Shrubs:

sand live oak *Quercus geminata*
Chapman's oak *Quercus chapmanii*
myrtle oak *Quercus myrtifolia*
saw palmetto *Serenoa repens*
fetterbush *Lyonia ferruginea*
garberia *Garberia fruticosa*
staggybush *Lyonia fruticosa*
shining sumac *Rhus copallina*
gallberry *Ilex glabra*
wax myrtle *Myrica cerifera*
wicky *Kalmia hirsuta*
huckleberry *Gaylussacia* spp.
scrub blueberry *Vaccinium myrsinites*
shiny lyonia *Lyonia lucida*

Vines:

scrub briar *Smilax auriculata*
sawbriar *Smilax glauca*
muscadine *Vitis rotundifolia*

Herbs:

grassleaf goldenaster *Heterotheca graminifolia*
Chapman's goldenrod *Solidago chapmanii*
vanilla leaf *Carphephorus odoratissimus*

Grasses and Grasslikes:

wiregrass *Aristida stricta*
scrub rush *Rhynchospora megalocarpa*
lopsided Indian grass *Sorghastrum nutans*

FLOODPLAIN FOREST

Trees:

cabbage palm *Sabal palmetto*
sugarberry *Celtis laevigata*
red maple *Acer rubrum*
water oak *Quercus nigra*
ironwood *Carpinus caroliniana*
sweetgum *Liquidambar styraciflua*
coastal plain willow *Salix caroliniana*
overcup oak *Quercus lyrata*
water hickory *Carya aquatica*
diamondleaf oak *Quercus laurifolia*
swamp chestnut oak *Quercus prinus*
green ash *Fraxinus pennsylvanica*
American elm *Ulmus americana*
sweetbay *Magnolia virginiana*
black willow *Salix nigra*
river birch *Betula nigra*
box elder *Acer negundo*
winged elm *Ulmus alata*
spruce pine *Pinus glabra*
beech *Fagus grandiflora*
dahoon holly *Ilex cassine*
live oak *Quercus virginiana*
loblolly pine *Pinus taeda*
American holly *Ilex opaca*
magnolia *Magnolia grandiflora*
southern red cedar *Juniperus silicicola*
cedar elm *Ulmus crassifolia*

Shrubs:

highbush blackberry *Rubus argutus*
elderberry *Sambucus canadensis*
blue palmetto *Sabal minor*
possum haw *Ilex decidua*
needle palm *Rhapidophyllum hystrix*
indigo bush *Amorpha fruticosa*
yaupon *Ilex vomitoria*
shiny lyonia *Lyonia lucida*
saw palmetto *Serenoa repens*
groundsel tree *Baccharis glomeruliflora*
sebastian bush *Sebastiana ligustrina*
swamp azalea *Rhododendron viscosum*
beautyberry *Callicarpa americana*
stiff-cornel dogwood *Cornus foemina*

FLOODPLAIN FOREST, Continued

southern arrowwood *Viburnum dentatum*
Walter viburnum *Viburnum obovatum*
parsley haw *Crataegus marshalli*
green haw *Crataegus viridis*
highbush blueberry *Vaccinium corymbosum*
wax myrtle *Myrica cerifera*
red buckeye *Aesculus pavia*

Vines:

poison ivy *Toxicodendron radicans*
muscadine *Vitis rotundifolia*
trumpet creeper *Campsis radicans*
cross vine *Bignonia capreolata*
peppervine *Ampelopsis arborea*
supplejack *Berchemia scandens*
Virginia creeper *Parthenocissus quinquefolia*
summer grape *Vitis aestivalis*
catbriar *Smilax bona-nox*
coral greenbriar *Smilax walteri*
laurelleaf greenbriar *Smilax laurifolia*
hogbriar *Smilax tamnoides*
American wisteria *Wisteria frutescens*
common hemp vine *Mikania scandens*
climbing hydrangea *Decumaria barbara*
virgin's bower *Clematis virginiana*

Herbs:

Virginia chain fern *Woodwardia virginica*
netted chain fern *Woodwardia areolata*
cinnamon fern *Osmunda cinnamomea*
marsh fern *Thelypteris palustris*
false nettle *Boehmeria cylindrica*
water willow *Justicia ovata*
mistflower *Conoclinium coelestinum*
butterweed *Senecio glabellus*
giant ironweed *Veronia gigantea*
spiderwort *Tradescantia ohiensis*
Carolina elephant's foot *Elephantopus caroliniana*
coinwort *Centella asiatica*
whorled pennywort *Hydrocotyle verticillata*
partridgeberry *Michella repens*
Florida violet *Viola affinis*

BAYGALLTrees:

sweetbay *Magnolia virginiana*
swamp bay *Persea palustris*
loblolly bay *Gordonia lasianthus*
dahoon *Ilex cassine*
white cedar *Chamaecyparis thyoides* or *C. henryi*
sweetgum *Liquidambar styraciflua*
blackgum *Nyssa biflora*
red maple *Acer rubrum*
cabbage palm *Sabal palmetto*
ironwood *Carpinus caroliniana*
spruce pine *Pinus glabra*
diamondleaf oak *Quercus laurifolia*
water oak *Quercus nigra*
American elm *Ulmus americana*
live oak *Quercus virginiana*
slash pine *Pinus eilliotii*
pond pine *Pinus serotina*

Shrubs:

Virginia willow *Itea virginica*
wax myrtle *Myrica cerifera*
shiny lyonia *Lyonia lucida*
swamp haw *Viburnum nudum*
gallberry *Ilex glabra*
swamp azalea *Rhododendron viscosum*
highbush blackberry *Rubus argutus*
winterberry *Ilex verticillata*
maleberry *Lyonia ligustrina*
myrtle-leaved holly *Ilex myrtifolia*
large gallberry *Ilex coriacea*
bog myrtle *Myrica heterophylla*
odorless myrtle *Myrica inodora*
highbush blueberry *Vaccinium corymbosum*
titi *Cyrilla racemiflora*
buckwheat tree *Cliftonia monophylla*
leucothoe *Leucothoe racemosa*
dog hobble *Leucothoe axillaris*
latherbush *Clethra alnifolia*
elderberry *Sambucus canadensis*
needle palm *Rhapidophyllum hystrix*
Florida anise *Illicium floridanum*
poison sumac *Rhus toxicodendron*

BAYGALL, Continued

red chokeberry *Aronia arbutifolia*
saw palmetto *Serenoa repens*

Vines:

muscadine *Vitis rotundifolia*
laurelleaf greenbriar *Smilax laurifolia*
Virginia creeper *Parthenocissus quinquefolia*
poison ivy *Toxicodendron radicans*
Carolina jessamine *Gelsemium* spp.
catbriar *Smilax bona-nox*
summer grape *Vitis aestivalis*
sawbriar *Smilax glauca*
common hempvine *Mikania scandens*
climbing hydrangea *Decumaria barbara*

Herbs:

cinnamon fern *Osmunda cinnamomea*
netted chain fern *Woodwardia areolata*
Virginia chain fern *Woodwardia virginica*
royal fern *Osmunda regalis*
false nettle *Boehmeria cylindrica*
sword fern *Dryopteris ludoviciana*
whorled pennywort *Hydrocotyle verticillata*
lizard tail *Saururus cernuus*
partridgeberry *Mitchella repens*
primrose willow *Ludwigia peruviana*
water hoarhound *Lycopus rubellus*
common dayflower *Commelina diffusa*
widespread maiden fern *Thelypteris normalis*
water hemlock *Cicuta mexicana*
marsh purslane *Ludwigia palustris*
dotted smartweed *Polygonum punctatum*
water pennywort *Hydrocotyle umbellata*
marsh fern *Thelypteris palustris*

Grasses and Grasslikes:

wetwoods panicum *Dichanthelium commutatum*
forked panicum *Dicanthelium dichotomum*
river cane *Arundinaria gigantea*
woodsgrass *Oplismenus setarius*
globespike sedge *Cyperus globulosus*
soft rush *Juncus effusus*

BAYGALL, Continued

roadgrass Eleocharis baldwinii
warted panicum Panicum verrucosum
sand pond nutgrass Cyperus haspan
sour paspalum Panicum conjugatum
floodplain beakrush Rhynchospora miliacea
tufted nutsedge Cyperus tenuifolius

Mosses and Lichens:

Sphagnum moss Sphagnum spp.

Epiphytes:

Spanish moss Tillandsia usneoides
ball moss Tillandsia recurvata
resurrection fern Polypodium polypodioides
serpent fern Phlebodium aureum
red needleleaf airplant Tillandsia setacea
shoestring fern Vittaria lineata

WET FLATWOODS

Trees:

slash pine *Pinus elliottii*
pond pine *Pinus serotina*
cabbage palm *Sabal palmetto*
loblolly bay *Gordonia lasianthus*
dahoon *Ilex cassine*
sweetbay *Magnolia virginiana*
sourgum *Nyssa sylvatica*
longleaf pine *Pinus palustris*
swamp bay *Persea palustris*
pondcypress *Taxodium ascendens*
diamondleaf oak *Quercus laurifolia*
water oak *Quercus nigra*
live oak *Quercus virginiana*
sweetgum *Liquidambar styraciflua*

Shrubs:

wax myrtle *Myrica cerifera*
gallberry *Ilex glabra*
saw palmetto *Serenoa repens*
fetterbush *Lyonia ferruginea*
shiny lyonia *Lyonia lucida*
dahoon holly *Ilex cassine*
bog myrtle *Myrica heterophylla*
large gallberry *Ilex coriacea*
shiny blueberry *Vaccinium myrsinites*
maleberry *Lyonia ligustrina*
Walter viburnum *Viburnum obovatum*
highbush blackberry *Rubus argutus*
dangleberry *Gaylussacia frondosa*
dwarf huckleberry *Gaylussacia dumosa*
saltbush *Baccharis* spp.
wicky *Kalmia hirsuta*
poison sumac *Toxicodendron vernix*

Vines:

laurelleaf greenbriar *Smilax laurifolia*
catbriar *Smilax bona-nox*
coral greenbriar *Smilax walteri*
common greenbriar *Smilax rotundifolia*
Carolina jessamine *Gelsemium sempervirens*
swamp jessamine *Gelsemium rankinii*

WET FLATWOODS, Continued

Virginia creeper *Parthenocissus quinquefolia*
peppervine *Ampelopsis arborea*
poison ivy *Toxicodendron radicans*

Herbs:

St. John's wort *Hypericum* spp.
redroot *Lachnanthes caroliniana*
candyweed *Polygala lutea*
meadow beauty *Rhexia* spp.
yellow colic root *Aletris lutea*
pink sundew *Drosera capillaris*
yellow-eyed grass *Xyris* spp.
hatpins *Eriocaulon compressum*
common pipewort *Eriocaulon decangulare*
marsh pink *Sabatia* spp.
white sabatia *Sabatia brevifolia*
marsh fleabane *Pluchea* spp.
Atlantic blue-eyed grass *Sisyrinchium atlanticum*
yellow star grass *Hypoxis* spp.
Virginia chain fern *Woodwardia virginiana*
netted chain fern *Woodwardia areolata*
Catesby lily *Lilium catesbaei*
bluehearts *Buchnera floridana*
grass pink *Calopogon tuberosus*
snowy orchid *Platanthera nivea*
bog white violet *Viola lanceolata*
grassleaf ladies' tresses *Spiranthes praecox*
sunbonnets *Chaptalia tomentosa*
cinnamon fern *Osmunda cinnamomea*
royal fern *Osmunda regalis*
bigelowia *Bigelowia nudata*
white bachelor's button *Polygala baldunii*
drumheads *Polygala cruciata*
candelabra milkwort *Polygala cymosa*
wild bachelor's button *Polygala nana*
Florida tickseed *Coreopsis leavenworthii*
common tickseed *Coreopsis gladiata*
Smith's tickseed *Coreopsis floridana*
water dropwort *Oxypolis filiformis*
Atamasco lily *Zephyranthes atamasco*
blue butterwort *Pinguicula caerulea*
yellow butterwort *Pinguicula lutea*
small butterwort *Pinguicula pumila*

WET FLATWOODS, Continued

musky mint *Hyptis alata*
bog buttons *Lachnocaulon* spp.
shoe buttons *Syngonanthus flavidulus*
water primrose *Ludwigia* spp.
giant ironweed *Veronia gigantea*
gerardia *Agalinis* spp.
piriqueta *Piriqueta caroliniana*
glades lobelia *Lobelia glandulosa*

Grasses and Grasslikes:

wiregrass *Aristida stricta*
toothache grass *Ctenium aromaticum*
bottlebrush threeawn *Aristida spiciformis*
chalky bluestem *Andropogon capillipes*
little blue maidencane *Amphicarpum muhlenbergianum*
Florida threeawn *Aristida rhizomophora*
whitetop sedge *Dichromena colorata*
star rush *Dichromena latifolia*
bluejoint panicum *Panicum tenerum*
redtop panicum *Panicum rigidulum*
forked panicum *Dicanthelium dichotomum*

HYDRIC HAMMOCK

Trees:

cabbage palm *Sabal palmetto*
diamondleaf oak *Quercus laurifolia*
water oak *Quercus nigra*
red maple *Acer rubrum*
ironwood *Carpinus caroliniana*
sugarberry *Celtis laevigata*
red cedar *Juniperus silicicola*
sweetgum *Liquidambar styraciflua*
loblolly pine *Pinus taeda*
sweetbay *Magnolia virginiana*
swamp bay *Persea palustris*
live oak *Quercus virginiana*
blackgum *Nyssa biflora*
magnolia *Magnolia grandiflora*
dahoon holly *Ilex cassine*
swamp chestnut oak *Quercus michauxii*
slash pine *Pinus elliottii*
green ash *Fraxinus pennsylvanica*
red mulberry *Morus rubra*
American elm *Ulmus americana*
Shumard oak *Quercus shumardii*
sugar maple *Acer saccharum*
American holly *Ilex opaca*
persimmon *Diospyros virginiana*
basswood *Tilia americana*
winged elm *Ulmus alata*
pond pine *Pinus serotina*
cedar elm *Ulmus crassifolia* N

Shrubs:

wax myrtle *Myrica cerifera*
blue palmetto *Sabal minor*
may haw *Crataegus aestivalis*
needle palm *Rhapidophyllum hystrix*
beautyberry *Callicarpa americana*
gallberry *Ilex glabra*
highbush blueberry *Vaccinium corymbosum*
highbush blackberry *Rubus argutus*
stiff-cornel dogwood *Cornus foemina*
Walter viburnum *Viburnum obovatum*
possum haw *Ilex decidua*
shiny lyonia *Lyonia lucida*

HYDRIC HAMMOCK. Continued

saw palmetto *Serenoa repens*
elderberry *Sambucus canadensis*
sprawling buckthorn *Bumelia reclinata*
red buckeye *Aesculus pavia*
Virginia willow *Itea virginica*
saltbush *Baccharis halimifolia*
sebastian bush *Sebastiana ligustrina*
bluff privet *Forestiera ligustrina*
green haw *Crataegus viridis*
parsley haw *Crataegus marshallii*

Vines:

poison ivy *Toxicodendron radicans*
Virginia creeper *Parthenocissus quinquefolia*
greenbriar *Smilax* spp.
summer grape *Vitis aestivalis*
trumpet creeper *Campsis radicans*
muscadine *Vitis rotundifolia*
supplejack *Berchemia scandens*
pepper vine *Ampelopsis arborea*
Carolina jessamine *Gelsemium* spp.
climbing hydrangea *Decumaria barbara*
common hemp vine *Mikania scandens*

Herbs:

sword fern *Dryopteris ludoviciana*
royal fern *Osmunda regalis*
cinnamon fern *Osmunda cinnamomea*
purple elephant's foot *Elephantopus nudatus*
Florida violet *Viola affinis*
musky mint *Hyptis alata*
lizard tail *Saururus cernuus*
Atlantic blue-eyed grass *Sisyrinchium atlanticum*
horseweed *Conza canadensis*
white ageratum *Ageratina jucunda*
wood fern *Thelypteris* spp.
milk pea *Galactia* spp.
beggarweed *Desmodium* spp.
netted chain fern *Woodwardia areolata*
Virginia chain fern *Woodwardia virginica*
wild petunia *Ruellia caroliniensis*
lyre-leaf sage *Salvia lyrata*
snakeroot *Sanicula canadensis*

HYDRIC HAMMOCK, Continued

creeping cucumber *Melothria pendula*
dichondra *Dichondra caroliniensis*
water pepper *Polygonum hydropiperoides*
St. Andrew's cross *Hypericum hypericoides*
jack-in-the-pulpit *Arisaema triphyllum*
partridgeberry *Mitchella repens*
dog fennel *Eupatorium capillifolium*
bedstraw *Galium* spp.
butterweed *Senecio glabellus*
pennywort *Hydrocotyle* spp.
swamp stargrass *Hypoxis leptocarpa*
giant ironweed *Veronia gigantea*
Atamasco lily *Zephyranthes atamasco*
grape fern *Botrychium* spp.
dayflower *Commelina* spp.

Grasses and Grasslikes:

Carex *Carex* spp.
spikegrasses *Chasmanthium* spp.
woodsgrass *Oplismenus setarius*
St. Augustine grass *Stenotaphrum secundatum*
wetwoods panicum *Dicanthelium commutatum*
redtop panicum *Panicum rigidulum*
Florida paspalum *Paspalum floridanum*
flat sedge *Cyperus* spp.
rush *Juncus* spp.
southern cutgrass *Leersia hexandra*
nimblewill *Muhlenbergia schreberi*
river cane *Arundinaria gigantea*
tall nutgrass *Scleria triglomerata*
beakrush *Rhynchospora* spp.

Epiphytes:

resurrection fern *Polypodium polypodioides*
ball moss *Tillandsia recurvata*
serpent fern *Phlebodium aureum*
Spanish moss *Tillandsia usneoides*
grey needleleaf airplant *Tillandsia bartramii*
red needleleaf airplant *Tillandsia setacea*
green fly orchid *Epidendrum conopseum*
shoestring fern *Vittaria lineata*

2.3 FAUNA

We have not prepared animal lists for each natural community because animals tend to use a wider range of habitats than plants do. As a general rule, they require a dry, moist, or wet environment, but are not picky about the particulars. (This generalization would not apply in a region with dramatic differences in soil type, altitude, salinity, etc., but it is a reasonably good rule of thumb in Alachua County.)

There are three groups of animals that are of special concern to conservation planning here.

One of these is the fauna of dry habitats, which include Upland Pine Forest, Xeric Hammock, Sandhill, Scrub, and Scrubby Flatwoods. These animals evolved in an environment that covered vast contiguous areas and was constantly shaped by fire. Hence they are doing poorly in the face of habitat fragmentation and fire suppression. The county's last red-cockaded woodpeckers died out a few years ago, and biologists fear the scrub jays are now gone. Fox squirrel populations are declining precipitously. Gopher tortoises and all their dependent commensal organisms are decreasing, as are Bachman's sparrows, kestrels, pine snakes, short-tailed snakes, and many other species such as bluebirds and indigo snakes, which are not quite so dependent on xeric habitats, but still use them extensively.

Another group of animals we need to be especially aware of are the large wide-ranging mammals. Bears, otters, and bobcats cannot survive on small tracts. Without extensive networks of natural areas we will lose these species as we have panthers and red wolves.

The third group is threatened because they have adapted to the opposite extreme. These are the snails, crayfish, and insects that have inbred in one tiny habitat for so long that they have evolved into forms found nowhere else. If that one place is destroyed, the entire species is lost. These are typically invertebrates found in isolated sinks, springs, or caves.

2.4 ALACHUA COUNTY DISTRIBUTION

The following discussions relate the examples on the sites we have recommended to the distribution and quality of the community on a countywide basis.

2.4.1 Scrub

Scrub was never common in Alachua County. We now have less than 1,000 acres, with no substantial tracts protected. There is a small patch in Oleno State Park.

This community, which is virtually unique to Florida, was once very abundant along the central Florida ridge south of Alachua County and in coastal dune areas, but it is disappearing rapidly and has become a major conservation concern. Alachua County's scrubs are not nearly so diverse as those further south.

Parchman Pond (600 acres) is the county's best scrub. Prairie Creek (100 acres) is second-best. The tracts on Watermelon Pond, Palm Point Hill, and Hornsby Springs are scientifically and educationally interesting, but too small to be meaningful preserves for this community.

2.4.2 Sandhill

Sandhill once covered nearly half of Alachua County, most abundantly in the southwest part of the county. Now we have 400 acres in San Felasco Hammock, tracts of no more than a few hundred acres in Austin Cary Memorial Forest, and small pieces in Morningside Nature Center, Paynes Prairie State Preserve, and Oleno State Park. Little of this is in good condition. Because it requires frequent fire, this community does not endure in patches too small to burn. Therefore, the above sites and those we recommend are all there is.

This community is widespread throughout the southeastern coastal plain into central Florida, but has been severely degraded by fragmentation and fire suppression almost everywhere.

Watermelon Pond is Alachua County's best sandhill site, with 1,600 acres in reasonably good condition and maybe 1,000 more restorable. Kanapaha Prairie has 150 acres in good shape and Lochloosa Forest's Palatka Pond tract has 120. Moss Lee Lake's 260 acres are not in quite such good condition. There are smaller pieces in the Hatchet Creek - Gum Root Swamp area.

2.4.3 Xeric Hammock

Alachua County probably has thousands of acres of xeric hammock, since this is what becomes of sandhills and scrubs that are too fragmented to burn. Thus this habitat is likely to be more extensive now than it was in the past. Paynes Prairie has 92 acres. Oleno has many small patches.

Xeric hammock is widespread throughout the southeastern coastal plain and becoming more so.

Alachua County's best xeric hammock is the 240-acre tract on Prairie Creek. The 200 acres of islands in Watermelon Pond is classified as xeric hammock, as is 80 acres of overgrown pineland at Hickory Sink. There are ecotonal patches of this habitat on Palm Point Hill and Chacala Pond. The 60 acres at Palatka Pond on Lochloosa Forest is of poor quality.

2.4.4 Upland Pine Forest

Upland pine forest was once abundant in a broad band from northwest to southwest across the county. Now we have 280 acres on Paynes Prairie and 1,000 acres on San Felasco, most of which has gone so long without fire that restoration prospects are questionable. Oleno has 1,150 acres, but it is unclear how much of this is in Alachua County.

There is upland pine forest in the Panhandle and further north, but in peninsular Florida it is restricted to Alachua and Marion counties. It is disappearing rapidly throughout its range due to fragmentation and fire suppression.

Hickory Sink is Alachua County's best example of this habitat with 1,200+ acres in good condition and 1,000+ more that could be restored. There were

patches of this habitat on Serenola Forest, Domino Hammock, and Kanapaha Prairie, but they are too overgrown for restoration to be feasible.

2.4.5 Mesic Hammock

Mesic Hammock has always been restricted to relatively small areas because it cannot tolerate fire. It therefore naturally occurs only on islands, peninsulas, and the like where surrounding wetlands act as fire buffers. Old-growth hammocks on sites like this are extremely rare. Much of the 3,300 acres of mesic hammock at San Felasco is this type of rare old forest. There are thousands more acres of mesic hammock in Alachua County, but very little else of that in preserves is genuinely old forest. Young hammocks are expanding rapidly on old agricultural lands and places that formerly burned. Oleno has 1,620 acres of varied mesic hammock, some of which is in the county. Paynes Prairie has 2,658 acres. Hundreds of small patches are more or less preserved in public and private woodlots and greenspace. Mesic hammock occurs throughout the southeastern coastal plain, but Alachua County is one of the richest parts of the region for this community. Our exceptionally fine hammocks are thus of conservation concern as a state and national resource.

San Felasco Hammock State Preserve incorporates Alachua County's best mesic hammock. Sugarfoot Hammock (160 acres) is next best. Hornsby Springs (180 acres) and Fred Bear Hammock (100 acres) are also excellent. Barr Hammock has 900 acres of good mesic hammock and 1,500 acres that would be easily restorable. Buzzard's Roost (30 acres) is a very fine small tract. Domino Hammock (130 acres) is seriously degraded, but impressive. Kanapaha Prairie has 500 acres of scenic degraded habitat. Serenola Forest (100 acres) and Palm Point Hill (50 acres) are still good examples of the community. There are substantial areas of good hammock in the Cross Creek area. The 900+ acres on South LaCrosse Forest is relatively poor quality. North San Felasco (300 acres) would be restorable to a high quality forest over the long term.

2.4.6 Slope Forest

Alachua County's slope forests are restricted to the ravines in the northwest part of the county. None of this is now preserved. There are no

substantial restorable tracts other than those described in this report.

Slope Forest are found in very restricted locations throughout the southeastern coastal plain. There are a few examples in Putnam and Volusia counties, and major concentrations west of Tallahassee, but Alachua County is the southernmost extension of the community.

Mill Creek (1,100 acres) is the county's best slope forest. Beech Valley (300 acres) was originally better, but has been seriously degraded. Rocky Creek (1,000 acres) is restorable.

2.4.7 Mesic Flatwoods

Mesic Flatwoods once covered large areas of Alachua County, especially north and east of Gainesville. Much of this area still looks somewhat similar to the original landscape, but the understory vegetation has been severely altered in most places. There are areas of natural flatwoods in Austin Cary Memorial Forest, Paynes Prairie State Preserve (315 acres), and San Felasco Hammock State Preserve (200 acres). There is a small tract in the Alachua County part of Oleno State Park.

Mesic Flatwoods were originally extensive across the southeastern coastal plain and down into South Florida. Degraded types still are, but flatwoods with native understories are rapidly becoming scarce.

Lochloosa Forest has Alachua County's best mesic flatwoods, the 860-acre tract at Palatka Pond. Shenks Flatwoods (700 acres) is next-best. The 260 acres along upper Hatchet Creek is also excellent. Northeast Lake Altho Flatwoods consists of 240 acres in good condition and 300 acres that is restorable. Millhopper Flatwoods incorporates 300 acres of natural flatwoods and 300 acres that have been disturbed. Gum Root Swamp includes about 800 acres of flatwoods of varying type and quality. There is a restorable 100-acre piece on Barr hammock. Chacala pond has 10 acres.

2.4.8 Scrubby Flatwoods

The county's extensive areas of mesic flatwoods intergrade with wetter and

drier versions of the community so that it is difficult to estimate acreages separately. Scrubby flatwoods, the xeric type, have probably always been the least abundant. There is a 75-acre area of scrubby flatwoods preserved on the Alachua County part of Oleno State Park. Paynes Prairie has 70 acres.

Scrubby flatwoods occur in xeric areas all over the southeastern coastal plain. Since, unlike wetter flatwoods, they are suitable habitat for burrowing animals like gopher tortoises, they are of particular value as wildlife habitat.

The 100 acres of scrubby flatwoods at Prairie Creek could be the county's best, though comparable tracts may exist within the Paynes Prairie, Oleno, Lochloosa, Austin Cary, or Hatchet Creek - Gum Root Swamp areas. Barr hammock has 100 acres of degraded scrubby flatwoods. The 60-acre South Melrose Flatwoods is a good, but perilously small, example of the community.

2.4.9 Floodplain Forest

Since Alachua County has only one substantial river, we have only one substantial area of floodplain forest: along the Santa Fe River. This system is still basically intact. Perhaps half the 4500-acre floodplain could be classified as floodplain forest. With the few patches along some of the smaller streams, this would bring the county's total acreage of this community to around 2500 acres.

There were once blackwater streams with floodplains similar that of the Santa Fe in a number of places around the southeastern coastal plain, but river systems in as near-pristine condition as this have become quite rare.

The Santa Fe River obviously has Alachua County's best floodplain forests, but the best example of a floodplain canebrake is in Mill Creek.

2.4.10 Baygall

Since baygalls are seepage areas, they only occur in small patches and strips and have never covered large areas of the local landscape. Paynes

Prairie has a total of 203 acres.

Baygalls are common scattered through the southeastern coastal plain down through central Florida.

Alachua County's best baygalls are those along Hatchet Creek. The Mill Creek site incorporates 200 acres of this community. Barr Hammock has about 90 acres. There are small areas in Lochloosa Forest and Millhopper Flatwoods.

2.4.11 Wet Flatwoods

The county's extensive areas of mesic flatwoods intergrade with wetter and drier versions of the community so that it is difficult to estimate acreages separately. Wet flatwoods with slash pine are still abundant, though often degraded, but those dominated by pond pine are becoming scarce. Paynes Prairie has several small areas of pond pine flatwoods, but we were unable to locate any large tracts of this community.

Wet flatwoods cover extensive areas of the southeastern coastal plain, but there are significant regional differences in the extremely diverse understory. Sites with high quality natural groundcover are becoming scarce.

The 90-acre stand of pond pine at Kincaid Flatwoods, listed in Appendix 9.4, may be the county's best example of this community. There is also a good 100-acre tract on the Townsend Branch part of the Mill Creek site and another at Barr Hammock. Other small stands are probably scattered throughout the Hatchet Creek - Gum Root Swamp and Prairie Creek - Lochloosa Forest areas.

2.4.12 Hydric Hammock

Hydric Hammock has always covered substantial areas of low land in Alachua County, but it has almost all been degraded by logging. Paynes Prairie has 110 acres in excellent condition.

This community occurs throughout the southeastern coastal plain, but varies a great deal from one region to another. Levy County's outstanding Gulf Hammock forests are generally better examples of the types typical of this region than what Alachua County has.

Prairie Creek's 150-acre tract is the county's best hydric hammock. The 150-acre Orange Lake Palm Hammock in Lochloosa Forest is also outstanding. Several hundred acres of Barr Hammock could be classified as hydric hammock; this is of very variable quality, but some areas are excellent. Chacala Pond has a band of hydric hammock along the eastern shore.

2.5 HABITAT-SPECIFIC CONSERVATION CONSIDERATIONS

Each type of natural community must be protected and managed differently in order to mimic the way nature maintained it in the native landscape. A full discussion of management practices is beyond the scope of this study, but there are key points one should keep in mind.

Scrub is adapted to catastrophic fires 30-120+ years apart. The plants do not catch fire easily, but when conditions are dry enough they go up in a blazing crown fire. Then shrubs sprout from the roots, seeds germinate, and everything starts out fresh. Lichens, which do not tolerate trampling, are prominent in the scrub groundcover.

Sandhills, flatwoods, and upland pine forests have a flammable wiregrass groundcover that carries a sweeping ground fire every few years. If they do not burn, they will grow up into hammocks. If a sandhill burns too seldom, it will become more like a scrub. Wiregrass is practically impossible to replant successfully and little is known about large scale restoration of pineland wildflowers. Pines, on the other hand, are easy to replant. Hence a cutover pineland with an intact groundcover is a far more valuable natural area than a majestic stand of pines without wiregrass. Wiregrass, wildflowers, and most characteristic sandhill animals need sunshine and open space. If the shrubs and trees get too thick, these species will die out.

Mesic hammocks and slope forests develop only on sites that have gone

unburned for many years. They cannot tolerate fire without severe damage. Since roads, ditches, firefighters, etc. stop fires from spreading like they used to, hammock is increasing rapidly. Hundred-year-old hardwood forests are commonplace and getting more so. Hammocks that have been growing on the same site for many thousands of years (like Sugarfoot and San Felasco) are much more diverse and extremely rare. Slope Forests are vulnerable to erosion if the ravine sides are trampled.

Baygalls and seepage slopes depend upon moisture trickling down from upslope. The vegetation here is adapted to acidic low- nutrient conditions. Hence these systems are highly vulnerable to alterations in hydrology or water quality.

Floodplain forests, wet flatwoods, and hydric hammocks all grow in sites that are frequently soggy and flood now and then. If drained, they will turn into mesic communities. If flooded for longer periods than they are accustomed, the trees will be stressed, perhaps even killed, and understory species may be eliminated.

3.0 SIGNIFICANT UPLAND ECOLOGICAL COMMUNITIES

The individual site summaries that follow describe the sites we have identified as significant ecological communities appropriate for preservation strategy. The information presented here is primarily straightforward descriptive material, but we have included several assessments that may need clarification.

The site's priority simply reflects where its rank fell in the computerized ranking evaluation described in Table 6.3.7. It is important to interpret these designations properly. "Low" does not mean a site is of minimal value. Sites lacking substantial ecological merit were screened out before the ranking process began. We felt it was important to identify the best of the best, and that is what a "high" here means. "Low" just indicates a that an excellent site is not one of the very best. A wide range of sites are categorized as "medium." Those near the top of the "medium" range are not significantly weaker than many of the "high" sites, and those near the bottom are not substantially better than many of those labelled "low".

To clarify planning options, we have included an assessment of preservation alternatives. Sites with a "yes" in this field are places where the integrity of the resource could be maintained by preserving only part of the site. We have not attempted to define what type of development would be acceptable on the less valuable portions of these sites, but we envision that carefully planned and monitored active recreation or cluster housing might work. Where we say "no" under Preservation Alternatives, it means that the site is so small, narrow, or sensitive that we cannot envision how any of it could be substantially developed without seriously degrading the resource. "Limited" means there are parts of the site that could be sacrificed, but we see potential conflicts between resource management needs and nearby development. The habitat may require burning, for example.

Under Recommendations we describe the major management activities that will be necessary to maintain the quality of the ecological communities. We also indicate what features and areas of the site are most important to preserve. And, if we have any ideas as to possible mechanisms that might be

used to effect preservation of the site, we include those. A thorough analysis of funding options, landowner inclinations, and other non-ecological concerns will be needed to define the most effective preservation strategy. Once the site is secure, a thorough resource inventory and a management plan will need to be prepared to assure that the site's ecological values continue to be preserved. We may indicate that regular burning will be needed, for example, but a detailed plan that specifies what kinds of fires should burn what areas on what schedule will eventually be required.

The following one site records of the 29 significant upland ecological communities identified in this inventory. They are presented in descending order of their ranking.

Site Rank	Site Name (Number)	Page Number
1.	Prairie Creek (40)	3-4
2.	Santa Fe River (32)	3-7
3.	Lochloosa Forest (11)	3-9
4.	Barr Hammock (27)	3-12
5.	Watermelon Pond (3)	3-15
6.	Hickory Sink (4)	3-18
7.	Sugarfoot Hammock (28)	3-21
8.	Chacala Pond (54)	3-24
9.	Mill Creek (7)	3-26
10.	Hatchet Creek (35)	3-30
11.	Parchman Pond Scrub (2)	3-32
12.	Hornsby Springs (12)	3-34
13.	Kanapaha Prairie (1)	3-37
14.	Gum Root Swamp (15)	3-39
15.	Millhopper Flatwoods (48)	3-41
16.	South LaCrosse Forest (24)	3-42
17.	Palm Point Hill (53)	3-43
18.	Fred Bear Hammock (42)	3-45
19.	Rocky Creek (22)	3-47
20.	Buzzard's Roost (6)	3-49
21.	Santa Fe Creek (17)	3-51
22.	North Santa Felasco Hammock (46)	3-53
23.	Shenks Flatwoods (19)	3-55
24.	Serenola Forest (26)	3-56
25.	Domino Hammock (56)	3-58
26.	Moss Lee Lake Sandhill (8)	3-60
27.	Beech Valley (36)	3-62
28.	Northeast Lake Altho Flatwoods (20)	3-64
29.	South Melrose Flatwoods (14)	3-66

Figure 3.1 shows the approximate location of these sites.

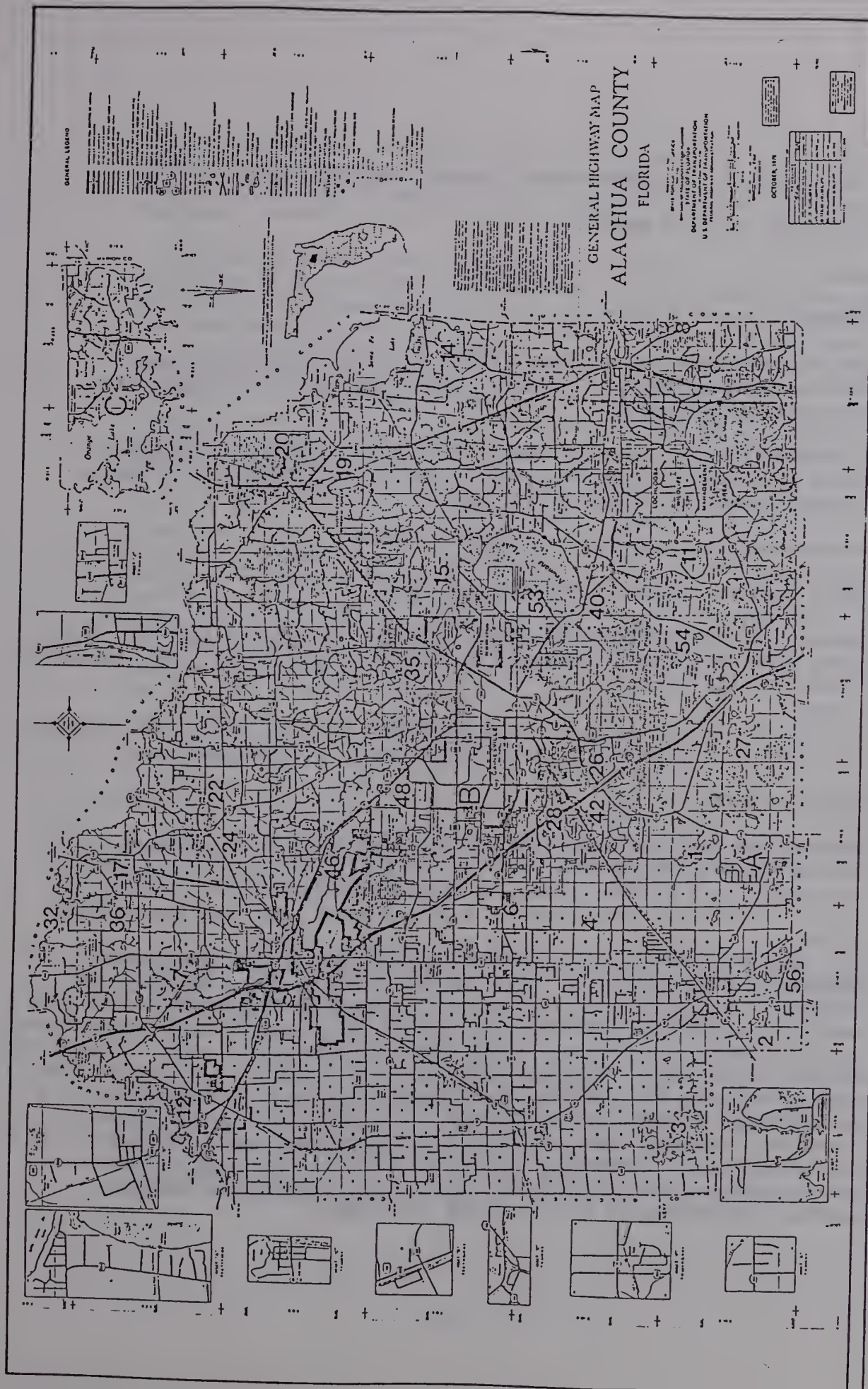


Figure 3.1 Location of Significant Upland Ecological Communities (Site Numbers) and Other Important Upland Habitats (Site Letters).

K&B

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Prairie Creek

MAP #: 40

PRIORITY: High

KEY FEATURES: Varied habitats. Excellent scrub and hydric hammock. Critical linkage for regional ecosystems. Important wildlife habitat. High recreational potential.

COMMUNITY TYPE(S): Hydric Hammock, Scrub, Xeric Hammock, Mesic Hammock, Mesic Flatwoods, Scrubby Flatwoods, Strand Swamp, Baygall, Blackwater Stream, Swamp Lake, Basin Marsh, Dome.

Preservation Alternatives: Limited.

QUAD: Rochelle, Micanopy, Gainesville East

TOWNSHIP/RANGE/SECTION: T10S, R21E, S30, S19, & parts of S20, S29, & S18; T10S, R20E, W 1/2 S30, E 1/4 S14, N 1/2 S24, W part of S25, and unnumbered section to the south.

DIRECTIONS: Between Newnan's Lake and Paynes Prairie. Accessible via SR 20 southeast from Gainesville or SR 234 northeast from Micanopy.

SIZE: 3,700 acres

DESCRIPTION: Prairie Creek is a winding blackwater stream flowing from Newnan's Lake into the Camp Canal at the edge of Paynes Prairie. It is surrounded by a diverse variety of habitats including Alachua County's finest examples of xeric hammock, hydric hammock, and Florida's unique scrub.

The scrub is mostly in the west half of Section 13 and the northwest quarter of Section 24. It covers about 100 acres with a dense 10-15' thicket of fetterbush and sand live oak growing on white sand with a good deal of saw palmetto and deermoss. Myrtle oak, Chapman's oak, gaylussacia, scrub blueberry, wild olive, scrub rush, and a number of other typical scrub species are present. Although there are a few scattered slash and loblolly pines, this site does not have the character or species composition of a transitional sandhill; it is clearly a long-established scrub community. Sand pine, rosemary, and other endemic scrub plants would probably thrive if introduced here. Scrub jays might also do well. The only animals we observed during our brief survey were rufous-sided towhee, bobwhite, southern fence lizard, and six-lined racerunner.

As discussed in the CARL proposal, Prairie Creek has a number of important archaeological sites. In the course of our field work, we noted that site 8-A-356, an exceptionally valuable 6,000-year-old site in the southeast quarter of Section 13, is currently being ravaged by a pot-hunter.

The best xeric hammock encompasses about 240 acres in the east quarter of Section 14 and the north half of Section 24, extending into Section 13. This is a very diverse mature forest of moderate density dominated by sand live oaks averaging 60' tall and 1-2' dbh. It has a fairly dense subcanopy of hophornbeam and devil's walkingstick over a shrub layer of saw palmetto, sparkleberry, and beautyberry. There is a sparse groundcover of spikegrass, goldenrod, and other grasses and herbs. Other abundant species include pignut hickory, laurel oak, and coral bean. Species present include dogwood, magnolia, indigo bush, bluff oak, wild olive, American holly, black cherry, and yaupon.

The highest quality hydric hammock is the 150 acres in Section 19 south of SR 20 and east of Prairie Creek, extending south into Section 30 along the creek. This forest has a canopy dominated by magnificent towering live oaks with a relatively open interior and a spikegrass carpet. This area appears to have been selectively logged long ago; loblolly pines, sweetgums and red maples typical of second-growth are abundant. The diverse herbs mixed with the spikegrass include several uncommon species.

The fauna of the Prairie Creek area is described in detail in the Prairie Creek CARL proposal. It is particularly noteworthy that this site incorporates breeding locations of ospreys, bald eagles, sandhill cranes, gopher tortoises, and wading birds.

OWNER: The tracts within this site are held by approximately 25 different landowners with a variety of motivations. The Prairie Creek CARL proposal details the ownership of the tracts within the boundaries of that proposal.

The scrub and xeric hammock tracts we suggest adding are listed under Greenberg & Greenberg/Jerevan, Inc., C.F. and Adelaide Ahmann, P.R. Marcus, and R.S. and C. Mackenzie.

FUTURE PROSPECTS:

The scrub area is slated for development. There has been discussion of extending a road through this area which would fragment this habitat even if it is not cleared.

The Owens Illinois tracts were presumably purchased as timberlands. The other owners' plans are unknown.

With continuing support from the county, the Prairie Creek CARL proposal will probably eventually be purchased by the state. The bulk of it is likely to be incorporated into Paynes Prairie State Preserve, but eastern segments may be included in the proposed Lochloosa State Forest. It has been suggested that the area around the Newnan's Lake outlet be managed as a county park with facilities for picnicking, canoeing, fishing, etc. The old Seaboard Coastline railroad right of way is being acquired by the Florida

Department of Natural Resources as a trail corridor for hiking, horseback riding, and bicycling.

Most of the pinelands in this area are quite overgrown. If restoration emphasizing frequent prescribed burning is not begun soon, these areas will grow into hammocks. The scrub is liable to eventually need fire prevent conversion to xeric hammock, but it could probably go another 5-10 years or more without burning before suffering irreversible effects.

RECOMMENDATIONS:

The county should actively support the Prairie Creek CARL proposal and recommend expansion of the project's boundaries to take in the scrub and xeric hammock to the northwest in the west half of Section 13 and the east quarter of Section 14. The state should be encouraged to look carefully at possibilities for expanding the project boundaries to the east and northeast, exploring options for agreements or easements to assure preservation of the hammocks and pinelands owned by Zetrouer, Putz, and others. (Zetrouer and Putz have both indicated willingness to give options or easements to The Nature Conservancy.) To facilitate management, the southern part of this project should extend to SR 234 wherever possible.

Prairie Creek's greatest value is as linkage connecting the Paynes Prairie, Lochloosa Forest, and Newnan's Lake systems. To maximize this function, the natural area here should connect Paynes Prairie and Lochloosa Forest along a broad front and extend as far north as possible around Newnan's Lake.

Additional lands recommended by the Paynes Prairie staff should be included. Craig Parenteau is said to be evaluating boundary refinements.

INFORMATION SOURCES USED: Original 8/87 field survey notes Bob Simons submitted to KBN, kept in KBN files. FNAI. Mark Brown, Jack Putz. "The Prairie creek CARL Project", proposal prepared by Mark Brown and Richard Hamann and submitted to DNR by the ACCARTF August 1987. 11/6/87 field observations by Linda Duever and Reed Noss.

ADDITIONAL INFORMATION SOURCES: Maps and preliminary species lists prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. Sources mentioned in the Prairie Creek CARL proposal. Carl J. Clausen's 1964 thesis on Indian site 8-A-356.

DATE: NOVEMBER 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Santa Fe River

MAP #: 32

PRIORITY: High

KEY FEATURES: Near-pristine blackwater river. County's best floodplain communities. Many unusual species. Critical regional ecosystem linkage.

COMMUNITY TYPES: Blackwater Stream, Floodplain Swamp, Floodplain Forest, River Floodplain Lake, Spring Run Stream, Slope Forest, Bog

PRESERVATION ALTERNATIVES: No.

QUAD: High Springs, Mikesville, Worthington Springs, Brooker, Monteocha, Waldo, Keystone Heights

TOWNSHIP/RANGE/SECTION: Waldo: T7S, R20E, S25; T7S, R21E, S30, S31, S32, S33, S34, S35, S36; T8S, R21E, S1, S12, S13; T8S, R22E, S6, S5, S8, S7, S18; parts of T7S, R20E, S17, S18, S19, S20, S28, S27, S34, S35, S36; parts of T7S, R17E, S11, S12, S1; T6S, R17E, S36; T6S, R18E, S31, S32, S28, S27. Parts of T6S, R18E, S27, S35, S26, S36; T6S, R19E, S31, S32, S33; T7S, R19E, S4, S3, S10; S15, S14, S13.

DIRECTIONS: Take any road to the county's northern border. The river is the county line.

SIZE: 4,500 acres

DESCRIPTION: The Santa Fe is a beautiful blackwater river with associated swamps, springs, bluffs, and ravines that provide good habitat for many northern species that do not extend further south into Florida.

The river has its headwaters in Santa Fe Swamp, an immense Okefenokee-like bog in the northeast corner of the county. This nearly impenetrable thicket is a very important wildlife area with good habitat for bears and alligators. This wetland drains the Trail Ridge refugium which is habitat for a number of endemic wildflowers.

The river flows generally westward and joins the Suwannee about ten miles northwest of High Springs. The upper part drains flatwoods and therefore carries clear, dark, acidic waters. This area has wildlife like that of the Osceola National Forest. Several reptiles and amphibians, including the canebrake rattlesnake, come near their southern limits in this floodplain ecosystem.

Past its junction with the New River, the Santa Fe takes on an important function in aquifer recharge as it flows along the piezometric surface of the aquifer. Through this central section, the floodplain is up to a mile wide in places and supports a mosaic of swamps and floodplain forests, including stands of black willow, river birch, and overcup oak at the southern limits of their distributions.

The Santa Fe's floodplain swamps and forests are the only examples of these communities in Alachua County and among the best in peninsular Florida.

At Oleno State Park, the river goes underground and emerges from the limestone as a much larger and more calcareous stream dominated by clear spring water. As the river continues westward, spring runs pour more and more clear water into it. This stretch is the southeastern limit for the American beaver, alligator snapping turtle, red-bellied watersnake, and spotted bullhead. The redeye chub, Suwannee bass, and Suwannee cooter are found only in the streams, springs and spring runs of this region. The aquatic caves support a fauna of rare subterranean organisms.

OWNER: Multiple, but still mostly large ownerships.

FUTURE PROSPECTS: The Santa Fe's swamps and sloughs fall under the technical definition of wetlands and thus receive certain regulatory protections, but many of areas of the slightly higher floodplain forests may be denied the relative security of wetlands legal status. Continuing residential and recreational development is the likely fate of these lands and especially the bluffs and steeper slopes that bring genuine uplands into close proximity to the river. Chopping up the river corridor with lawns, fences, and the territories of barking dogs would destroy the integrity of the Santa Fe system. River systems are inherently linear and the biota there is adapted to a regular flow of not only water, but nutrients, organisms, and genetic material.

RECOMMENDATIONS:

The entire length of the Santa Fe floodplain should be preserved in its natural state. It would probably be a good candidate for state funding and water management district or state preserve management. The area could easily accommodate canoeing, hiking, horseback riding, and similar appropriately managed passive recreation activities.

We wrote up several areas incorporating tributaries of the Santa Fe as individual sites. Plans for protection of these places should be integrated with those for the river as a whole.

INFORMATION SOURCES USED: FNAI. Portions of the Suwannee River Coalition's 1983 special report to DER on the Santa Fe River System re proposed designation of the Santa Fe as Outstanding Florida Waters. NCFRPC 1973 Open Space and Recreation Study.

ADDITIONAL INFORMATION SOURCES: FDE: Helen Hood, Jane Walker.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605-904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Lochloosa Forest

MAP #: 11

PRIORITY: High

KEY FEATURES: Large size. Important linkage for regional ecosystems. Bear and eagle habitat. Four special areas: Palatka Pond (county's best flatwoods), Orange Lake Palm Hammock (exceptional hydric hammock), River Styx (wood stork rookery), Magnesia Springs (only location for endangered snail).

COMMUNITY TYPES: Mesic Flatwoods, Cypress Strand, Hydric Hammock, Sandhill, Xeric Hammock, Baygall, Depression Marsh, Basin Marsh, Spring Run Stream, Flatwood/Prairie Lake, Basin Swamp, Dome.

PRESERVATION ALTERNATIVES: Limited. Needs fire. Should not be fragmented.

QUAD: Rochelle

TOWNSHIP/RANGE/SECTION:

DIRECTIONS: Take SR 20 east towards Hawthorne. Turn right onto CR 325. This goes through middle of site.

SIZE: 31,300 acres

DESCRIPTION: Huge tract of flatwoods surrounding Lochloosa Lake. Most of site is managed timber, but there are several high quality natural areas:

1) Palatka Pond

This 1,280 parcel has 860 acres of outstanding mesic flatwoods. Longleaf dominates in the drier areas and slash pine in the wetter places. The pines are average about 1' dbh and 80- 90' tall. Saw palmetto, gallberry, and huckleberry are the most abundant shrubs in the open understory. The groundcover is a mixture of wiregrass, andropogon, maidencane, and wildflowers, including yellow-eyed grass, hatpins, hooded pitcher plant, redroot, blackroot, vanilla plant, meadow beauty, milkwort, elephant's foot, trilisa, and lavender paintbrush. CR 325 has been designated an Alachua County Wildflower Road and many more species have been recorded in this area. Wildlife observed in this habitat include deer, rufous-sided towhee, eastern phoebe, pine warbler, yellowthroat, brown-headed nuthatch, red-headed woodpecker, and pine woods treefrog.

There is also about 120 acres of sandhill in this area. This habitat has large longleaf pines and scattered turkey oaks. The understory is open with a good wiregrass groundcover. Scrub blueberry and gopher apple are common in the sparse shrub layer. Gopher tortoises are plentiful here and indigo snakes have been recorded nearby.

The Palatka Pond area also has 60 acres of xeric hammock, 200 acres of swamp and bayhead, 30 acres of ponds, and 10 acres of marsh.

2) Orange Lake Palm Hammock

This is a very old hydric hammock dominated by 60-90' tall cabbage palms. Live oak is increasingly prominent back from the lake. Sweetgum and green ash are also common. Saltbush and wax myrtle are the most abundant shrubs, but bluff privet is plentiful and there are occasional specimens of sprawling buckthorn and parsley haw. Due to the site's warm microclimate, epiphytes are more abundant and varied than usual this far north.

Animals observed here include otter, deer, osprey, bald eagle (at least one nest), white ibis, and black racer.

3) River Styx

A fine cypress strand with a major colony of endangered wood storks. Osprey nests.

4) Magnesia Springs

Spring developed as a swimming area. The free-mouth hydrobe snail (Aphaostracon chalarogyrus) is abundant here, but has never been found anywhere else.

Lochloosa Forest is valuable habitat for wildlife, including wide-ranging species that cannot be supported by smaller preserves. This is the only place in the county still inhabited by bears other than chance wanderers. Canebrake rattlesnakes reach their extreme southern limit along Lochloosa Creek. Approximately four pairs of eagles nest in the part of the forest between Lochloosa Lake and Orange Lake and there are about a dozen to the southeast beyond the site boundary. Several pairs of sandhill cranes nest along the site boundary in Hay Lake and Fish Pond. There is still a population of fox squirrels near Watson Prairie.

OWNER: The 1986 ownership map indicates that Owens-Illinois owns 6,000 acres within the CARL proposal as well as Lochloosa Creek. We understand that a large part of this property was sold in 1987. Franklin Crates, Inc. and Concora Corp. own the River Styx. J.T. Goethe owns the Palatka Pond tract. There are about a dozen smaller ownerships.

FUTURE PROSPECTS: Most of this site lies within the proposed Lochloosa State Forest and will probably be purchased through the state CARL program in the next year or so. Natural habitat enhancement is not always a high-priority management objective for such forests, so state forest status does not guarantee that the ecological values of the natural uplands will be maintained.

The very important Palatka Pond tract is under different ownership and was therefore originally excluded from the area proposed for purchase. It could be logged and/or diced for commercial forestry at any time.

RECOMMENDATIONS: Support state acquisition of the Lochloosa State Forest CARL proposal, then promote planning and funding to assure that

sandhills and flatwoods are burned frequently and native understories are maintained and restored as appropriate.

The CARL boundaries should be adjusted to include the Palatka Pond tract, the River Styx swamp, Magnesia Springs, and Lochloosa Creek.

Coordinate with Marion County to maintain natural linkages between the ecosystems of the Lochloosa and Ocala forests.

INFORMATION SOURCES USED: Original 8/87 field survey notes for Palatka Pond Bob Simons submitted to KBN, kept in KBN files. FNAI, including 5/3/83 field survey notes and species lists for Orange Lake Palm Hammock by Bob Simons and Walter Judd. FNAI. Helen Hood. 1986 Annual Report of the CARL Committee. NCFRPC Green Plan Inventory. Fred Thompson.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. Lochloosa State Forest CARL proposal and files. Jim Brady. Jim Rodgers. Wayne Marion. Steve Nesbitt. Bill Frankenberger. Paul Moler. Sources cited in FNAI records: U82MOL01, A85MOL02FL, B68TH001, B77ROS01, S67THOSM, S63THOSM, FGFWFC annual bald eagle nest summary. Notes and collection records from Archie Carr's field trips. Sources cited in Green Plan: Dave Scott, Lovett Williams, Clark Cross, Bill Schlitzkus of Owens-Illinois.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Barr Hammock

MAP #: 27

PRIORITY: High

KEY FEATURES: Varied high quality hammock. Good pond pine flatwoods. Large size. Good potential for greenbelt connections, low cost management, multiple recreational uses.

COMMUNITY TYPES: Mesic Hammock, Hydric Hammock, Wet Flatwoods, Mesic Flatwoods, Scrubby Flatwoods, Baygall, Scrub, Basin Marsh

PRESERVATION ALTERNATIVES: Yes.

QUAD: Micanopy, Flemington, Arredondo

TOWNSHIP/RANGE/SECTION: T11S, R20E, S19, S30, S28, S29, & parts of W 1/2 of S27; T11S, R19E, S24, S25, S36, & E 1/8 of S35

DIRECTIONS: Take SR 234 west from Micanopy under I-75. Bear right at fork. Go one mile. Turn right and drive one and a half miles through Micanopy Hammock subdivision. Center of site is to the north. Need landowner's permission and key to enter.

SIZE: 3,000 acres

DESCRIPTION: This is a low, flat band of varied high quality hammock and flatwoods lying between two scenic prairies. All the hammock has been cut over to some extent, but the part bordering Levy Prairie is in fine condition and the rest is restorable.

About 150 acres of hydric hammock along the central part of the Levy Prairie shoreline has a very unusual species composition. This is one of the few peninsular Florida forest dominated by swamp chestnut oak. Shumard oak, a very uncommon species, is quite plentiful here. Pignut hickory, live oak, sugarberry, ironwood, and cabbage palm are frequent. Parts of the forest have a more-or-less closed 80+' canopy. In other areas the canopy is very uneven with maybe 50 percent coverage. Hawthorn, blue palmetto, and blackberry grow in the shrub layer.

The hydric hammock grades imperceptibly into the mesic hammock that covers most of the site. This habitat varies from second-growth thickets of oaks and young loblolly pines to stands of young to mature hardwoods with occasional grand old live oaks. Water oak, sweetgum, pignut hickory, and ironwood are the most abundant trees. The understory varies from open and parklike to densely shrubby. Swamp chestnut oak, white ash, winged elm, persimmon, and blackgum are among the more common trees. Highbush blackberry, beautyberry, and stiff-cornel dogwood, are numerous in the shrub layer. There is a good population of the rare shrub, Godfrey's privet. The plentiful vines include greenbriar, muscadine, Carolina jessamine, summer grape, poison ivy, and Virginia creeper. Partridgeberry, carex, woodsgrass,

spikegrass, and elephant's foot are common in the varied groundcover.

The wet flatwoods cover about 100 acres, mostly in an east-west band across the middle of Section 28 and into Section 27. This is an open stand of mixed slash and pond pines, some about seven years old and some much older. It has a shrubby 1-5' understory including shiny lyonia, wicky, saw palmetto, red chokeberry, tarflower, and sand live oak.

The wet flatwoods grade into about 100 acres of mesic flatwoods to the south. This area has been site-prepped and bedded for pine production and planted with slash pines now about seven years old. There are still patches of saw palmetto, shiny lyonia, and wiregrass, so restoration would be relatively easy.

As the land gets drier further to the south, the mesic flatwoods grade into scrubby flatwoods. About 100 acres across the south edge of Section 28 and into Section 27 was also site-prepped and planted to slash pine about seven years ago. The understory here has sand live oak, shiny lyonia, and some saw palmetto, bracken, wiregrass and reindeer moss. Gopher tortoises are abundant in this habitat.

Just southeast of the center of Section 28 there is a five-acre patch of scrub. This is a dense 20' thicket of sand live oak and fetterbush with an understory of saw palmetto, scrub rush, and reindeer moss.

Scattered through the site are depressions with bayhead seepage communities. These typically have a tall dense forest of medium-large trees over a fern-dominated groundcover. Blackgum, loblolly bay, and sweetbay are the usual trees. The shrub layer includes shiny lyonia, gallberry, and swamp haw. The common ferns are netted chain fern, Virginia chain fern, cinnamon fern, and royal fern.

We saw kestrels and bald eagles on the site. Two eagle nests have been documented. About six pairs of sandhill cranes nest in Levy Prairie and about twelve pairs in Ledwith, half of them on the Alachua County side. Hunters say the deer population is good.

OWNER: Container Woodlands, Inc. owns most of the site. V.E. Whitehurst & Sons, Inc. owns most of Levy Prairie, the north and east sides of Section 29, the northern part of Section 28, and the north half of Section 27 west of the interstate. Thelma Perry owns the southern half of Section 27. The D.R. Zetrouer heirs own most of Ledwith Prairie, Mud Prairie, and the forests in between, including all of sections 35, 36, and 31, as well as the wetland southwest third of Section 30. Smith and Smith own the strip of forest around the southwest corner of Levy Prairie. Julia Hudson owns 92 acres in the southwest corner of Section 30.

FUTURE PROSPECTS: The site has proven unsatisfactory for pine production due to hardwood competition. High-density residential development would probably not be feasible because of the site modifications that would be necessitated by the high water table. This is fertile land, but too wet to be considered prime pasture. It might eventually go into some type of agriculture, but haphazard ranchette development is the most likely scenario, since this is an area with a rapidly increasing demand for rural homesites.

The Zetrouer and Whitehurst lands are liable to stay just as they are indefinitely. Zetrouer's plans are unstated, but he is said to be

sympathetic to conservation. Whitehurst is unlikely to be willing to sell. He could decide to develop his lands agriculturally. The other owners' intentions are unknown.

Unless a regular burning program is maintained, the flatwoods will soon grow into hammock and the site's habitat variety will be substantially decreased. The scrub also needs to be burned soon.

Barr Hammock has a tremendous number of armadillos. These non-native animals damage vegetation and devastate populations of certain invertebrates, reptiles, and other small ground-dwelling animals. They will continue to degrade the site until an effective control program is implemented.

RECOMMENDATIONS: Barr Hammock is conveniently located very near the Micanopy I-75 interchange and should be considered as a potential county park. The most heavily cutover areas are quite flat and, if they are not too wet for playing fields to be constructed economically, might be good areas for active recreation. The better quality forests should be reserved for passive recreation and nature study. Excellent horseback riding trails would be easy to develop along the grassy roads that lace the area.

Barr Hammock is especially valuable in a regional ecology context because it forms a potential natural system linkage between the Kanapaha Prairie uplands and the uplands in the southwestern corner of Paynes Prairie State Preserve. Any park or development plan should maintain this broad band of natural habitat along the south shore of Levy Prairie.

Ideally, a park here should include Levy and Ledwith prairies or at least be established in conjunction with a plan to restore/maintain these wetlands to the greatest degree feasible. A park would be enhanced by including canoeing and fishing access to prairie lake areas.

Disruptive activities should be kept away from eagle nest areas.

INFORMATION SOURCES USED: Original 8-10/87 field survey notes Bob Simons submitted to KBN, kept in KBN files. FNAI. Mike Campbell. Helen Hood. 10/5/87 field observations by Reed Noss. 10/30/87 field observations by Linda Duever and Jim Newman.

ADDITIONAL INFORMATION SOURCES: Maps and preliminary species lists prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. Steve Nesbitt. David Hall. Joel Smith. Don Dunn and Bob Mowbray (904/732-2241) and Dale Rye (904/495-2660) of Container.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Watermelon Pond

MAP #: 3

PRIORITY: High

KEY FEATURES: Excellent and extensive sandhill. Unusual scrub. Scenic marsh/lake complex.

COMMUNITY TYPES: Sandhill, Scrub, Basin Marsh, Wet Prairie, Sinkhole Lake, Sandhill Upland Lake, Xeric Hammock

QUAD: Archer, Newberry SW

PRESERVATION ALTERNATIVES: Yes, on disturbed areas, if it does not interfere with fire management or habitat continuity.

TOWNSHIP/RANGE/SECTION: T11S, R17E, S1, S2, S4, S5, S9 & most of E 1/2 of S8; T10S, R17E, S 1/2 of S32 & S 1/2 of S33.

DIRECTIONS: Take SR 45 two miles northwest of Archer. Turn left and go two miles. Eastern core is to the south. Or, take CR 337 south from Newberry. Go six and a half miles. Western core is to the east.

SIZE: 4,880

DESCRIPTION: Watermelon Pond is a shallow high-quality mesotrophic lake with no outlet. It has widely fluctuating water levels and therefore broad irregular borders of maidencane-dominated prairie with patches of sand cord grass, yellow lotus, and a variety of other wetland species. The lake apparently serves to recharge the Floridan Aquifer through the porous limestone beneath its basin.

The upland portions of the site are in two core areas:

1) The eastern core encompasses 1,280 acres in T11S, R17E, sections 1 and 2.

There is an 800-acre tract of healthy sandhill here. The canopy is widely scattered young mature longleaf with numerous turkey oaks. The shrub layer is largely open with some sand live oak and saw palmetto, abundant shining sumac, and a few rosemary bushes. Wiregrass dominates the groundcover, which includes bracken, dog fennel, and such wildflowers as greeneyes, dog tongue, butterfly weed, sandhill milkweed, blackroot, sandhill croton, queen's delight, sand blackberry, and gopher apple. There are some young planted slash pines and patches of bahia grass in this area.

The top of the high hill in the northwest corner of Section 2 is covered with a very interesting scrub community composed of scattered huge old rosemary bushes, some of them 8' tall and 10' across. Most of the remainder of the area is bare ground with patches of reindeer moss and other lichens and a few saw palmettos. Young rosemaries and turkey oaks are numerous. There are a few young longleaf pines. Other

species include lavender paintbrush, goldenaster, wiregrass, greeneyes, sun bonnets, honeycomb head, cottonweed, blazing star, and dog fennel. Medium-size gopher tortoise burrows are abundant, but few of them look active. Ant colonies are evident.

Deer, pocket gopher, kestrel, kingbird, rufous-sided towhee, red-headed woodpecker, Carolina chickadee, gopher tortoise, and gopher frog were observed in the eastern core area. There were still scrub jays in the scrub just south of this area as late as 1981; current status of the population is unknown.

This eastern tract includes 240 acres of cleared land, 80 acres of xeric hammock dominated by sand live oak, 80 acres of slash pine with sandhill understory, 40 acres of maidencane prairie, and 20 acres in ponds.

2) The western core is a 3,600-acre tract on the west side of Watermelon Pond off CR 337.

This area has 800 acres of sandhill, mostly in good condition. This is generally turkey oak woods with scattered mature longleaf pines and lots of young longleaf, most of which appear to have been planted. The shrub layer is composed predominantly of shining sumac with a few thickets of sand live oak, sparkleberry, and wax myrtle. There is a healthy wiregrass groundcover with abundant dog fennel, poison oak, and wildflowers, including sandhill hoary pea, butterfly pea, white beard-tongue, honeycomb head, rayless sunflower, scrub prickly pear, puckroot, lavender paintbrush, queen's delight, dog tongue, sandhill croton, polecat bush, and elephant's foot. There are a few rosemary bushes and coontie plants. Gopher tortoises are uncommon, but present. Pocket gopher, fence lizard, and kestrel were observed. There was still a small population of fox squirrels in this area in 1986. Indigo snakes have been recorded nearby.

On the islands in the prairie grow xeric hammock thickets of sand live oak with wax myrtle and sparkleberry. These are important to wildlife, offering high water refuges, patches of cover, nesting sites, and food sources (acorns). This habitat covers a total of around 200 acres.

Piedmont jointgrass, a rare species, has been recorded from a sandy former pond bottom in Section 5.

The western tract also has 350 acres of cleared land, most of which is in pasture, and 120 acres of slash pine plantation which could be restored to sandhill.

Watermelon Pond is valuable wildlife habitat. Many wading birds feed on the prairie. Species listed as occurring on this site include bobcat, raccoon, opossum, marsh rabbit, great blue heron, kingfisher, Louisiana heron, least bittern, wood duck, ring-necked duck, blue-winged teal, green-winged teal, mallard, ruddy duck, and alligator.

OWNER: The eastern core is owned by A.C. Boggs. Loncala Phosphate Co. owns Section 5. Section 33, and much of sections 32 and 4, are owned by Barry's Ranch, Inc. The rest of Section 4 is broken into several 40-200-acre ownerships. There are a number of small ownerships in Section 8. George & Grace Wang own the southwest part of Section 33.

FUTURE PROSPECTS: Pine plantations, improved pastures, and house-trailer ranchettes are expanding rapidly in this area. Such activities are liable to soon fragment the uplands and prevent maintenance of proper fire regimes in the sandhills. Clearing, overgrazing, and/or shrub overgrowth will probably destroy the sandhill ecosystem piece by piece if it is not preserved in large units promptly.

RECOMMENDATIONS: Preserve/restore the two large core areas and join them with bands of restored habitat across the intervening more fragmented lands. This site would probably be a good candidate for CARL acquisition, with subsequent state park, state preserve, or water management district management. The managing agency should be committed to regular burning of the sandhill habitats.

Coordinate protection plans and natural system linkages with Levy and Gilchrist counties. This site is part of the Waccasassa River ecosystem and needs to be managed as such.

INFORMATION SOURCES USED: Original 8/87 field survey notes and species lists Bob Simons submitted to KBN, kept in KBN files. FNAI. 1973 NCFRPC Open Space and Recreation Study. 1973 NCFRPC Green Plan Inventory. 11/16/87 field observations by Linda Duever and Jim Newman.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. Jeff Cox's 1981 scrub jay report submitted to FGFWFC. Wayne Marion. Paul Moler. Bill Frankenberger. Sources cited in 1973 NCFRPC Green Plan Inventory: Dr. Mifflin (Geology), Bill Hurst (Civil Engineering), Herrick Smith (Landscape Architecture), all UF.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Hickory Sink

MAP #: 4

PRIORITY: High

KEY FEATURES: Best longleaf pine/red oak example in Florida. Caves and sinks with rare fauna. Critical greenbelt linkage.

COMMUNITY TYPES: Upland Pine Forest, Xeric Hammock, Terrestrial Cave, Aquatic Cave, Sinkhole, Sinkhole Lake

PRESERVATION ALTERNATIVES: No. Needs fire. Incorporates sensitive features.

QUAD: Arredondo

TOWNSHIP/RANGE/SECTION: T10S, R18E, S24 and N 1/2+ of S25; T10S, R19E, W 1/2 of S19, N 1/2 of S30, and NW 1/4 of S29.

DIRECTIONS: East side of Parker Road three miles north of SR 24.

SIZE: 1,540 acres

DESCRIPTION: Probably the largest intact piece of restorable longleaf pine/southern red oak community left in peninsular Florida.

About 300 acres in the north half of Section 25 is an impressive open forest of mature longleaf pine. Although the understory shows evidence of some clearing (but not plowing) in the distant past, this is still the largest and best forest of its type in the county. (Similar tracts in San Felasco Hammock have not been burned often enough for proper management of this fire-maintained community.) The shrub layer is laurel oak with some wax myrtle, shining sumac, and saw palmetto, and a few southern red oaks, mockernut hickories, bluejack oaks, and chinquapins. The groundcover is wiregrass with bracken, poison oak, sand blackberry, and other grasses and herbs. There are a few young longleaf pines.

The 640 acres in Section 24 has been clearcut and only a few patches of trees remain, mostly longleaf pines and mockernut hickories. The shrubs and groundcover are similar to those on the unlogged tract, but with abundant dog fennel.

The 670 acres of the site in Sections 19, 30, and 29 have been cut over, but still have scattered longleaf pines, bluejack oaks, and southern red oaks. The very diverse understory is dominated by laurel oak sprouts with dog fennel and shining sumac. Wiregrass, chinquapin, bracken, partridge pea, and poison oak are abundant in the groundcover. Wildflowers, including blazing star, pineland foxglove, summer farewell, blue pea, butterfly weed, lavender paintbrush, coral bean, and asters are plentiful. Coontie also grows in this area.

About 80 acres in the northeast quarter of Section 25 has been allowed to grow up into a young laurel oak hammock with a few live

oaks, southern red oaks, and longleaf pines.

The Hickory Sink site has interesting limestone karst features throughout and there are several caves and sinks of documented importance. One of Florida's largest bat colonies breeds here. This cave housed peak populations of up to 75,000 insect-eating southeastern myotis bats when it was last studied in 1957. Bob Simons observed many bats feeding about a mile to the west in August 1987, so we suspect that the colony is still active. The aquatic caves support rare invertebrates and this site is the type locality for one subspecies.

This is also valuable habitat for terrestrial wildlife. The site has a gopher tortoise colony and kestrels breed in the vicinity. Bachman's sparrows are abundant. Pine snakes and burrowing owls have been recorded just to the west. We did not see fox squirrels or short-tailed snakes, but this is a likely habitat for them. We did observe brown-headed nuthatch, bobwhite, chuck-will's-widow, indigo bunting, rufous-sided towhee, yellow-billed cuckoo, great crested flycatcher, and red-tailed hawk. Pocket gopher mounds were evident along the roadside. If properly managed for old-growth timber, this would probably make a suitable reintroduction location for red-cockaded woodpeckers.

OWNER: Frances C. Lee is listed as owner of most of the property, but signs on the fences are signed Frances Childress. A 50-acre parcel in the center of Section 25 is listed under Miranda Y. Childress. Section 19 is owned by Fleeman & Kaskel. Most of the north half of Section 30 is Haile & Haile, as is most of the northwest quarter of Section 29.

FUTURE PROSPECTS: The landowners' intentions are unknown, but this is an active development area.

If the pine forest is not burned within the next few years the oaks will grow into a thicket, choking out many of the pineland plant species and limiting the possibilities for restoration.

RECOMMENDATIONS:

Hickory Sink could serve as the keystone for a western greenbelt for Gainesville. The site lies within both the greenbelt under consideration by the Conservation and Recreation Areas Task Force and a potential wildlife corridor identified by university biologists.

If a preserve is planned, serious consideration should be given to expanding the boundaries to take in additional restorable pineland and/or karst features. Detailed field surveys will be required to fully define the areas that should be incorporated.

This site has enough unusual biological features to be of interest to The Nature Conservancy. TNC personnel are already aware of the area and eager to help preserve it. We recommend that the county actively cooperate with TNC in developing a preservation strategy for this site through some combination of acquisition and/or landowner agreement.

Since Hickory Sink incorporates sensitive ecological features it should be managed as a nature preserve. Certain areas should be open only to responsible scientists and guided groups. Less sensitive parts of the site could accommodate hiking and horseback trails linked to other greenbelt recreational areas.

INFORMATION SOURCES USED: Original 8/87 field survey notes Bob Simons submitted to KBN, kept in KBN files. FNAI. Steve Humphrey. Dick Franz. Dale Rice's 1957 Journal of Mammalogy paper on bat caves. 11/2/87 field observation by Linda Duever, Reed Noss, and Jim Newman.

ADDITIONAL INFORMATION SOURCES: Maps and preliminary species lists prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. J.A. Bauer. Florida Speleological Society. Steve Nesbitt. FNAI references A40HOB01, B42HOB01, B77HOB01, PNDSMI03.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Sugarfoot Hammock

MAP #: 28

PRIORITY: Medium

KEY FEATURES: Magnificent ancient mesic hammock. Only location for endangered insect. Very scenic.

COMMUNITY TYPES: Mesic Hammock, Basin Marsh, Floodplain Swamp, Floodplain Forest, Sinkhole, Sinkhole Lake, Marsh Lake; stream with characteristics of several watercourse types

PRESERVATION ALTERNATIVES: No.

QUAD: Gainesville West

TOWNSHIP/RANGE/SECTION: T10S, R19E, portions of S10 and S15, SE 1/3 of S9, and E 1/2 of S16.

DIRECTIONS: Take SW 20th Avenue to I-75 underpass. Most important areas are south of 20th just west of interstate and north of 20th just to the east.

SIZE: 200 acres

DESCRIPTION: Sugarfoot Hammock was once second only to San Felasco as Florida's most outstanding example of mesic hammock. Now it has been split in two by I-75 and seriously fragmented by agricultural and residential development, but it still has viable remnants of outstanding forest. The value of the hammock is enhanced by its very scenic association with Lake Kanapaha and Hogtown Prairie, Hogtown Creek, and Haile Sink.

The extremely diverse old-growth hammock grows on a fertile sandy soil with pockets of clay and many limestone outcrops. This habitat alone supports nearly 40 tree species. The dense 100' canopy is dominated by sweetgum and sugarberry with some pignut hickory and a 60' subcanopy of redbay. Most of the canopy trees are 1-2' dbh, but exceptionally large trees of a variety of species are scattered throughout, including huge specimens of black cherry, persimmon, bluff oak, soapberry, boxelder, red mulberry, redbay, live oak, laurel oak, and swamp chestnut oak. Some of these trees are 5-6' dbh. Boxelder dominates the relatively open midstory. Winged elm and hophornbeam are also prominent in this layer. The shrub and groundcover layers are dense and extraordinarily diverse. Stiff-cornel dogwood is one of the most common shrubs. The very rare Godfrey's privet is also numerous in some areas. Major groundcover plants include greenbriars, valerian, woodsgrass, carex, walter's violet, and poison ivy. Vines are abundant, including huge grape vines and many large specimens of buckthorn and virgin's bower. There are a number of uncommon herbs, ferns, and epiphytes.

Hogtown Prairie is an especially valuable wetland because of its exceptional stand of water elm. From a distance, these generally uncommon trees look like small spreading live oaks. Dotted about the wetter portions of the prairie they make a picturesque savanna of the marshy landscape.

The western part of the site (Split Rock) is named after a significant geological feature. About 160 acres of this is old growth hammock surrounding 40 acres of second growth on an abandoned pine plantation. This is a particularly park-like part of the forest with many 3-5' dbh live oaks, sinkholes, and rock outcrops. Dwarf thorn, Carolina holly, Godfrey's privet, wild plum, flatwoods plum, and buckthorn are prominent where there are patches of shrubs.

There was once an outstanding sandhill just northwest of Split Rock. We did not field survey this habitat because the fire regime necessary to maintain it would be impractical in such an urbanizing location.

Sugarfoot Hammock supports an insect which is a candidate for federal endangered species listing and is strictly endemic to Alachua County. The sugarfoot fly (Nemopalpus nearticus) has never been found anywhere but in this hammock. This is a very distinct species, the only member of its subfamily in North America. The Split Rock forest block southwest of the interstate underpass and northeast of Hogtown Prairie is the area most critical to the survival of this species. The area north of SW 20th Avenue and east of SW 62nd Boulevard is also important.

Animal species observed here include cottontail rabbit, grey squirrel, barred owl, red-shouldered hawk, kestrel, yellow-billed cuckoo, red-eyed vireo, white-eyed vireo, Carolina wren, and Carolina anole. We saw a flock of wading birds including maybe 50 white ibis, a great egret, a little blue heron, a green heron, and about 20 endangered wood storks feeding near Haile Sink when we visited the site 11/5/87. The Dickinsons say there is a periodic egret and heron rookery in the Split Rock area. Deer, bobcat, otter, and wild turkey have also been reported. This site has been well known to university biologists for many years, so many more wildlife observations have surely been documented.

OWNER: Prairie View (Henderson) Trust owns the southeast third of Section 9, most of the northwest two-thirds of Section 10, and the bulk of the site east of I-75. Mabel Barnes owns a strip along the south edge of Section 10 and the center part of Section 15. The Dickinson family owns the east central part of Section 16. Alachua County owns the northeast part of Section 16 and the northwest part of Section 15. The City of Gainesville owns most of the southern third of Section 16.

FUTURE PROSPECTS:

The Prairie View Trust land is likely to be developed into a moderate- to high-density residential complex if not purchased for preservation.

The Dickinsons intend to keep most of their land natural.

Mabel Barnes' plans are unknown.

Ligustrum lucidum, a non-native shrub, is invading the hammock and may change its character if it is not removed. Chinaberry is also present, but does not appear to be a threat to the native flora.

The pine snakes and short-tailed snakes recorded from this vicinity will probably die out as the nearby sandhill is eliminated.

RECOMMENDATIONS:

The county park should be expanded to take in the Prairie View Trust and Barnes lands west of the interstate. This scenic area could accommodate a carefully designed network of hiking and jogging trails. These could link across the edge of the Dickinson property with a trail system continuing past the city sewage plant and on to Kanapaha Botanical Gardens and points south.

As a secondary priority, the remaining hammock east of I-75 should be preserved. It could also be used as a greenspace for jogging trails.

Insect spraying should be minimized in this vicinity and prohibited entirely around the areas inhabited by the sugarfoot fly.

The Dickinsons are said to have some sort of conservation agreement preserving their land. This should be checked to be certain the tract has adequate permanent legal protection.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI. Site Survey Summary from 8/17-19/83 field survey Bob Simons and David Hall conducted for FNAI. Site Recommendation and old aerial photos submitted by Joshua Dickinson III. 1973 NCFRPC Open Space and Recreation Study. Bob Simons' 1985 "Sugarfoot Hammock Preservation Proposal" submitted by Conservation Planning Coalition. NCFRPC Green Plan Inventory. 11/5/87 field observations by Linda Duever and Reed Noss.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. "The Sugarfoot Area: A preliminary evaluation of the area against the criteria for designation as an 'Area of Critical State Concern'" prepared by NCFRPC for Alachua County Commission in 1981. Sources listed on FNAI documents: B82FRA01, FNDYOU01, PNDHAL01. David G. Young. Dan Ward. Walter Judd. Records from Archie Carr's field trips and herpetological collections.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Chacala Pond

MAP #: 54

PRIORITY: Medium

KEY FEATURES: Critical part of Paynes Prairie ecosystem. Good mesic and hydric hammock. Important lake system. Key link to Lochloosa Forest.

COMMUNITY TYPES: Mesic Hammock, Xeric Hammock, Basin Marsh, Dry Prairie, Flatwoods/Prairie Lake, Mesic Flatwoods, Sinkhole Lake, Hydric Hammock

PRESERVATION ALTERNATIVES: Yes, if buffer functions could be maintained.

QUAD: Micanopy

TOWNSHIP/RANGE/SECTION: T11S, R20E, Moses E. Levy Grant: S 1/2 of Lot 4, NE 1/4 of Lot 9, N 1/2 of Lot 10

DIRECTIONS: Take SR 234 northeast from Micanopy. Go two miles. Site is to west and northwest. With gate keys, can be reached via Paynes Prairie State Preserve access roads.

SIZE: 1,080 acres

DESCRIPTION: Chacala Pond links the wetland/aquatic system incorporating Georges Pond, Lake Wauberg, and Sawgrass Pond with Paynes Prairie. It is a very important segment of the migration route that fish, alligators, turtles, otters, and other wetland animals use to move to and from the prairie as water levels change. The site's uplands include nice hammocks and flatwoods which are important as a buffer for the Paynes Prairie and as an upland habitat link along the preserve's southeast border and between there and the forests connected with the proposed Lochloosa State Forest.

The site includes about 500 acres of mesic hammock dominated by large live oaks and water oaks. Other common trees are laurel oak, pignut hickory, sweetgum, ironwood, American holly, and cabbage palm. Swamp chestnut oak, magnolia, winged elm, black cherry, basswood, and white ash also grow here. The understory is very variable in density. Sparkleberry, small-flowered pawpaw, and, in places, fetterbush are prominent in the shrub layer. Greenbriar, Virginia creeper, poison ivy, and cross vine are the most common vines. The groundcover is sparse, but there are patches of partridgeberry and elephant's foot in the leaf litter.

The mesic hammock grades into a subtropical hydric hammock with many palms and epiphytes along the lakeshore.

Eagles and wading birds feed in Chacala Pond. Gopher tortoises have been observed crossing SR 234 near this site.

There is a major archaeological site at Chacala Pond.
OWNER: Murphy owns most of the site. D. & L. DeConna own about 70 acres of it in the Stafford Pond area.

FUTURE PROSPECTS: This land has been under consideration for state purchase as an addition to Paynes Prairie State Preserve for a number of years. Cook, the former owner, and now Murphy's unwillingness to sell has been the primary problem in state acquisition. DeConna is willing to sell, but reportedly unwilling to compromise on price. The land is so important to the integrity of Paynes Prairie that the state will probably find a way to acquire it at some time. In the meantime, DeConna's land is likely to remain more or less natural unless sold and Murphy's will probably continue in use as a working ranch.

RECOMMENDATIONS:

Interim options to prevent the degradation of this site should be explored. The most important considerations are those relevant to management of the state preserve rather than those associated with preservation of the on-site habitats other than Chacala Pond.

INFORMATION SOURCES USED: Field survey notes Bob Simons submitted to KBN, kept in KBN files. FNAI. 1986 CARL Committee annual report.

ADDITIONAL INFORMATION SOURCES: Maps and preliminary species lists prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. CARL proposals and files. Jack Gillen. Don Younker.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Mill Creek

MAP #: 7

PRIORITY: Medium

KEY FEATURES: Ravines with southernmost slope forests. County's best canebrake.

COMMUNITY TYPES: Slope Forest, Wet Flatwoods, Mesic Hammock, Baygall, Floodplain Forest, Sinkhole Lake, Seepage Stream

PRESERVATION ALTERNATIVES: Yes, fields between ravines could be used for active recreation or cluster development if trampling could be prevented in ravines.

QUAD: Alachua, Worthington Springs

TOWNSHIP/RANGE/SECTION: Parts of T7S, R18E, S21, S22, S28, S27, S26, S34, S35, S36; T8S, R18E, S1, S2.

DIRECTIONS: Take I-75 to SR 236 north of Alachua. Go east about a quarter mile, then turn right onto SR 235A. Go a little over a mile, then take dirt road forking to left. This is Alligator Road. Use map and follow it or connecting dirt roads to appropriate point and walk into forest on compass bearing.

SIZE: 2,500 acres

DESCRIPTION: This site is composed of the ravines of the Alachua stream system, which support Florida's southernmost slope forest communities. These are forests reminiscent of those in the southern Appalachians. Beech reaches its southernmost limit here and other "northern" species like sugar maple and basswood contribute to the atmosphere.

There are several major blocks of forest in this area:

1) Upper Mill Creek

This tract is in the north half of Section 26. Half of it is mature forest with medium-sized trees. The rest was clearcut about three years ago, but is restorable.

The canopy is dominated by water oak and pignut hickory. Beech, magnolia, and spruce pine are very prominent, especially close to the creek. Sweetgum is abundant. Hophornbeam is the most common subcanopy species. Other trees include ironwood, live oak, laurel oak, swamp chestnut oak, basswood, American holly, flowering dogwood, persimmon, sweetbay, and sweetleaf. There are patches of saw palmetto in the understory and a few needle palms around seeps. Netted chain fern, partridgeberry, and poison ivy are major components of the groundcover. This is the county's best remaining stand of beech trees.

2) Middle Mill Creek

Continuing from Section 26 through 27, 34, and 35, this is a very diverse climax hardwood forest with both slope forest and floodplain forest components.

The forest extends from the ravine slopes onto a fertile alluvial basin containing the best canebrake community in Alachua County. On this site the native bamboo grows 25' tall with stems 1" in diameter.

The forest continues to be dominated by water oak and pignut hickory with a hophornbeam subcanopy. Live oak, laurel oak, basswood, sweetgum, magnolia, and ironwood are common. Other trees include sugar maple, boxelder, winged elm, white ash, loblolly pine, swamp chestnut oak, American holly, flowering dogwood, persimmon, and sweetleaf. There are a few large beech trees. The understory is dominated in different areas by dwarf thorn, river cane, spikegrass, and blue palmetto. The partridgeberry and poison ivy groundcover also includes Walter's violet, jack-in-the-pulpit, green dragon, ebony spleenwort, southern lady fern, netted chain fern, bearfoot sunflower, lopseed, and, on the floodplain, neverwet.

3) Townsend Branch

This tract incorporates Alachua County's finest example of the beech-magnolia community considered the classic climax forest of the southeastern United States. It includes 200 acres classified as slope forest and 300 acres of mesic hammock. This is a mature, but not virgin, forest of 1-2' dbh trees. Near the creek, it has a tall canopy and an open park-like understory. The most abundant trees are water oak, laurel oak, magnolia, and pignut hickory. Beech, spruce pine, swamp chestnut oak, live oak, blackgum, red maple, sweetgum, hophornbeam, ironwood, and sweetleaf are also common, and there is some loblolly pine, slash pine, sweetbay, basswood, sugar maple, red mulberry, American holly, flowering dogwood, and devil's walkingstick. Common species in the diverse shrub flora include southern arrowwood, sparkleberry, small-flowered pawpaw, Virginia willow, strawberry bush, saw palmetto, and blue palmetto. Cross vine, Carolina jessamine, poison ivy, and muscadine are the most common vines. There is some climbing hydrangea. Partridgeberry and southern lady fern are abundant in the groundcover, which includes southern dewberry, elephant's foot, carex, Walter's violet, jack-in-the-pulpit, blue curls, crane fly orchid, ebony spleenwort, sword fern, netted chain fern, cinnamon fern, royal fern, Christmas fern (near the southern limit of its range), and Indian pipes.

The east half of the southwest quarter of Section 15 and the northeast corner of Section 22 is high quality pond pine flatwoods with intermittent ponds. This area has medium-size pond pines mixed with a few slash pines over a dense shrub thicket dominated by saw palmetto, gallberry, and shiny lyonia. Other shrubs include wicky, large gallberry, staggerbush, scrub blueberry, and wax myrtle. The shrubs are tangled with Carolina jessamine and greenbriar. The groundcover includes bracken and vanilla leaf.

4) Rock Creek

This is an open forest of very large old trees, but it has been significantly impacted by grazing.

On the uplands, water oak, pignut hickory, and sugar maple dominate the canopy. Hophornbeam, ironwood, sugarberry, basswood, and swamp chestnut oak are also common. Other tree species include white ash, red maple, laurel oak, live oak, red buckeye, boxelder, red mulberry, and red cedar. Beautyberry is the most common shrub. There is also some strawberry bush, but little other woody understory. The ground is bare in some areas and covered with poison ivy in others. Other groundcover species include woodsgrass, river cane, jack-in-the-pulpit, green dragon, elephant's foot, ironweed, thelypteris, and Christmas fern.

On the alluvial soil of the floodplain, sugarberry, sweetgum, red maple, Florida elm, and oaks dominate. Beneath the canopy are widely scattered boxelders and ironwoods and abundant young sugarberries. A few red buckeyes and green haws constitute the shrub layer. The ground is bare except for patches of spikegrass.

Wildlife observed on this site included wild turkey, Carolina wren, yellow-shafted flicker, pileated woodpecker.

OWNER: Multiple. Illegible on ownership map.

FUTURE PROSPECTS: Could be logged and/or converted to pasture at any time. Otherwise likely to stay natural for a number of years. Will become vulnerable to residential development as Alachua grows.

Left alone, or with minor management to accelerate the process, the cutover and/or grazed tracts will grow back into good quality hardwood forest.

RECOMMENDATIONS: Preserve/restore the slopes and floodplains and the pond pine flatwoods. Ideally, a park should be created to encompass the ravines and the intervening uplands.

The ravines should be linked together by strips of similar restored habitat and connected to the extent possible with other comparable habitats in the region.

Since slopes are susceptible to erosion, trails through the ravines should be planned and managed carefully.

There is some chinaberry in Rock Creek. This exotic species should be removed. It is not a serious ecological threat, but it does alter the native character of the forest.

The pond pine flatwoods need to be burned every few years or they will grow up into a bay forest with reduced species diversity.

INFORMATION SOURCES USED: Original 8/87 field survey notes and species lists Bob Simons submitted to KBN, kept in KBN files. FNAI, including Bob Simons' 11/3/83 field survey of Townsend Branch. Notes from John Hendrix, Bob Simons, and Bob Tighe's 3/85 observations for Alachua County Resource Inventory. 11/3/87 field observations by Linda Duever and Reed Noss. The Geology of the Western Part of Alachua County, Florida Bureau of Geology Report of Investigations No. 85.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. Dan Ward.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288,
Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Hatchet Creek

MAP #: 35

PRIORITY: Medium

KEY FEATURES: High habitat and species diversity. County's best baygalls. Interesting herpetofauna. Critical ecological link between Buck Bay, Austin Cary Forest, and Gum Root Swamp.

COMMUNITY TYPES: Mesic Flatwoods, Sandhill, Blackwater Stream, Floodplain Swamp, Baygall, Hydric Hammock, Mesic Hammock

PRESERVATION ALTERNATIVES: No. Too narrow generally. Wide spots need fire.

QUAD: Gainesville East, Orange Heights

TOWNSHIP/RANGE/SECTION: T9S, R20E, portions of S15, S14, S10, S11, S2, S1, S6, S7; T9S, R21E, S5, S8, S9, S10

DIRECTIONS: Take SR 24 northeast towards Waldo. Site begins across highway from airport. Go about two miles further. Center of site goes under road here.

SIZE: 1,600 acres

DESCRIPTION: Hatchet Creek is a blackwater stream that meanders through a narrow corridor of floodplain forest in a broad arc from its headwaters just west of the Gainesville Regional Airport around to the north, then drains southward through Gum Root Swamp into Newnan's Lake. The surrounding uplands still have nice tracts of sandhills and flatwoods, and where seepage from these communities drains onto the floodplain, there are interesting baygall communities.

The type of sandhill/seepage community landscape here is widespread in the western Panhandle and occurs in a few places between Gainesville and Jacksonville, but is not found elsewhere in Alachua County. Titi, alder, and other bog plants found here are uncommon this far south. Thorough field surveys of this area are likely to reveal a number of populations of species rare or unknown in the county.

OWNER: Concora Corp. is the largest landowner. There are substantial tracts owned by the state of Florida and multiple smaller ownerships.

FUTURE PROSPECTS: Rapidly being fragmented by a variety of land development activities. Soon likely to be broken into tracts too small for proper fire management.

Pollution or alterations to shallow groundwater hydrology may damage baygalls dependent upon low-nutrient seepage.

RECOMMENDATIONS: Preserve floodplain and associated natural uplands from Buck Bay to Gum Root Swamp. For this area to function effectively as an ecological linkage, there needs to be a band of natural habitat across the Buck Bay wetlands joining it with the San Felasco Hammock area. It will also be important to maintain as wide as possible an overpass where the site crosses SR 24.

Management should assure that the sandhills and flatwoods are burned every few years.

There may be places in this system that were once herbaceous seepage bogs with pitcher plants and associated species. If this proves to be the case, these communities should be restored and maintained with proper burning.

Extensive areas of pavement, channelization of surface flows, and other activities that might interfere with seepage to the baygalls should be avoided on the adjacent uplands. Septic tanks and other sources of pollution and excess nutrients should be restricted on sites upslope of these communities.

INFORMATION SOURCES USED: Original 8/87 field survey notes and species lists Bob Simons submitted to KBN, kept in KBN files. FNAI. Site Recommendation submitted by Thomas O'Shea.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. UF/FSM herpetological collection data. Dale Crider.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Parchman Pond Scrub

MAP #: 2

PRIORITY: Medium

KEY FEATURES: High quality sandhill/scrub transition community.

COMMUNITY TYPES: Sandhill, Scrub.

PRESERVATION ALTERNATIVES: Limited. Requires fire.

QUAD: Archer, Bronson NE

TOWNSHIP/RANGE/SECTION: T11S, R18E, S30

DIRECTIONS: Go one mile southwest of Archer on SR 24. Site is on right just south of landfill.

SIZE: 640 acres

DESCRIPTION: Stunted turkey oak forest on deep white sand. Widely scattered stunted longleaf pines. Abundant rosemary and some saw palmetto in patchy shrub layer. Thin wiregrass groundcover in places. Lots of reindeer moss and gopher apple. Wildflowers include sandhill croton, dog tongue, roserush, summer farewell, queen's delight, scrub dayflower, pawpaw, lavender paintbrush, lady lupine, and scrub prickly pear.

There are a few gopher tortoises here. Other wildlife observed includes pocket gopher, rufous-sided towhee, chuck-will's widow, six-lined racerunner, harvester ant, and push-up beetle. Indigo snakes have been recorded just to the west and burrowing owls have been reported from this vicinity.

OWNER: Osteen Brothers, Inc. own most of it. In the south-central part of the section is an 80-acre tract owned by a trust (illegible on ownership map).

FUTURE PROSPECTS: Permitted for sand mine. If preserved and burned once or twice every century, this would be Alachua County's finest scrub.

RECOMMENDATIONS: Scrub is disappearing rapidly and should be preserved whenever feasible.

INFORMATION SOURCES USED: Original 8/87 field survey notes and species lists Bob Simons submitted to KBN, kept in KBN files. FNAI. Helen Hood.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288,
Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Hornsby Springs

MAP #: 12

PRIORITY: Medium

KEY FEATURES: Outstanding mesic hammock and floodplain forest. Large spring and spring run with rare aquatic species.

COMMUNITY TYPES: Mesic Hammock, Floodplain Forest, Floodplain Swamp, Spring-run Stream, Sinkhole, Sinkhole Lake, River Floodplain Lake, Blackwater Stream, Scrub, Xeric Hammock

PRESERVATION ALTERNATIVES: Yes, but proportion of developed area should not be significantly increased.

QUAD: High Springs

TOWNSHIP/RANGE/SECTION: T7S, R17E, parts of S22, S23, S20, S26, and S27.

DIRECTIONS: Go NW from High Springs on SR 25. Just before the Santa Fe River bridge, turn right and follow the signs into Camp Kulaqua.

SIZE: 250 acres

DESCRIPTION: Hornsby Springs' most important features are the spring and spring run flowing into the Santa Fe River and the adjoining magnificent mesic hammock. The site includes a small patch of very unusual isolated scrub and a pretty floodplain swamp with some extraordinarily large remnant cypress.

About forty acres around the spring has been mostly cleared and developed into an elaborate church camp with impressive modern buildings, stables, airstrip, etc.

The mesic hammock incorporates about 180 acres of mature forest plus 60 acres of second-growth on land formerly planted to pines. The very diverse mature forest has a dense primary canopy of live oaks and laurel oaks about 100 feet high with a well-developed subcanopy of hophornbeam. Young redbays dominate the distinct broadleaf evergreen shrub layer and poison ivy is the most common groundcover plant. Large old grape vines loop through the trees. Other woody species include bluff oak, swamp chestnut oak, sugar maple, white ash, winged elm, American holly, fringetree, basswood, flowering dogwood, redbud, spruce pine, strawberry bush, and sweetleaf. Magnolia, pignut hickory, and sweetgum are especially abundant. The herbs include green dragon and partridgeberry.

The floodplain forest is a dense and diverse mature forest dominated by large live oaks in some areas and laurel oak, sweetgum, and Florida elm in others. It covers about 40 acres. There is a good deal of ironwood in the subcanopy. Highbush blueberry, saw palmetto, blue palmetto, sebastian bush, and indigo bush are the most

abundant shrubs. Spikegrass, poison ivy, and water willow dominate the patchy groundcover.

The Hornsby Springs scrub is an oddity. This isolated 15-acre patch of sandy xeric habitat has developed a very unusual species composition in the absence of nearby seed sources for scrub plants. It has a 10-20' canopy of dwarfed trees 2-4" dbh. Sand live oak and fetterbush, which are the most common shrubs in Alachua County scrubs, dominate, but the dwarfed trees include pignut hickory, sourgum, laurel oak, sweetleaf, American holly, and magnolia, which are all normally hammock trees. Saw palmetto, sparkleberry, and deerberry are common shrubs. The sparse groundcover includes reindeer moss and bracken.

Hornsby Spring has been developed as a swimming area for Camp Kulaqua. The clear elliptical pool, which is about 125' wide and 185' long, is partially enclosed by a 2-3' tall concrete and rock retaining wall around the north and east sides. A U-shaped floating dock extends into the center. There are lawns to the east, but cypress and other natural swamp vegetation borders the west side. There is some water hyacinth. The pool vegetation shows the wear and tear of swimming activity, but there are still plants, fish, and turtles there. The spring connects underground with several nearby sinks and the invertebrate fauna of this subterranean aquatic system includes at least one rare species.

A boardwalk leads from the spring area back into the floodplain swamp, where there is an enormous cypress tree. A sign beside it explains that it is thousands of years old, but several hundred would be a better estimate. Nearby stumps suggest that this topless tree is hollow and was therefore passed over in logging many years ago. There are red maples and blackgums in the subcanopy and patches of swamp lily on the forest floor. The swamp encompasses about 100 acres.

There are several sinkholes on this site, one of which is a deep "blue hole" connected to the aquifer.

The Hornsby Springs area is particularly interesting in that at least eight species (beaver, alligator snapping turtle, redbelly watersnake, spotted bullhead, Suwanee bass, river birch, black willow, and overcup oak) reach the southeastern limit of their ranges here. The Suwanee cooter, a regional endemic turtle, has also been observed on this site.

Our wildlife observations included deer, grey squirrel, wild turkey, yellow-bellied sapsucker, pileated woodpecker, red-shouldered hawk, barred owl, and broad-headed skink.

OWNER: The Seventh Day Adventist church owns Camp Kulaqua. Jim and Liz Wing own the tract to the north adjoining Oleno State Park.

FUTURE PROSPECTS: Camp Kulaqua appears to be a permanently established retreat and recreation site. The facilities incorporate a nature center and trail, so the camp managers obviously have concern for the site's natural values. However, we observed a dump with a number of large tree trunk segments as well as current construction of what looks like a cluster of cabins, indicating that there is some ongoing degradation of the forest.

Jim and Liz Wing are conservation-minded landowners expected to be respectful of their land.

RECOMMENDATIONS: We suggest that the county work through The Nature Conservancy's Landowner Contact Program to secure natural area registration and protection agreements for this area.

This site overlaps Site #32, Santa Fe River, so preservation plans for these areas need to be coordinated.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI. NCFRPC Green Plan Inventory. 11/3/87 field observations by Linda Duever and Reed Noss.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. Dick Franz. J.A. Bauer. Sources mentioned in Franz and Bauer's 1983 report to FNAI: William Hulet 1968, Warren 1960, I.S. Exley, D. Desautels. Sources mentioned in Green Plan: E.G. Cann of High Springs, Jack Quick and Norman Middag of Camp Kulaqua. Sources mentioned in FNAI files: B77HOB01, B82FRA01, S54AUFSM, U73LEE01. Springs of Florida, Florida Bureau of Geology Bulletin No. 31.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Kanapaha Prairie

MAP #: 1

PRIORITY: Medium

KEY FEATURES: High quality sandhills. Important wildlife habitat. Valuable greenbelt link. Outstanding scenery.

COMMUNITY TYPES: Mesic Hammock, Sandhill, Wet Prairie, Basin Marsh, Sinkhole, Sinkhole Lake, Upland Pine Forest

PRESERVATION ALTERNATIVES: Yes.

QUAD: Arredondo

TOWNSHIP/RANGE/SECTION: T11S, R19E, S7, S8, S9, S16, and S17

DIRECTIONS: Take Williston Road southwest two miles past where Wacahoota Road forks off to left. Turn right onto 346A. Go almost one mile and turn right onto road into Brice property.

SIZE: 1,890 acres

DESCRIPTION: The bulk of this site is essentially a very scenic pasture. Kanapaha Prairie is a mixture of marshy areas with native vegetation and improved pasture. The prairie is rimmed with park-like stands of huge live oaks. In most places the understory has been cleared and maintained in grass by grazing, but there are a few areas of mesic hammock. These are largely second-growth with older oaks and an understory impacted by grazing.

This site's value as upland habitat lies primarily in the associated sandhill communities. These are turkey oak - dominated with only a very few longleaf pines, but the oaks are widely scattered and the groundcover is diverse and in reasonably good condition. There are some bluejack and sand post oaks mixed with the turkey oaks and some summer hawthorn in the very sparse shrub layer. The groundcover is mostly wiregrass with poison oak, dog fennel, and a variety of wildflowers. Fox squirrels, Bachman's sparrows, and gopher tortoises are abundant here. Pine snakes and indigo snakes have also been seen in the area. At least three pairs of kestrels nest in this habitat.

Although the prairie rim vegetation has been seriously altered by grazing, this is still valuable wildlife habitat supporting good populations of bluebirds, wild turkeys, barred owls, barn owls, both red and gray foxes, and fox squirrels, as well as many other animals. There is an eagle nest at the northeast corner of the prairie.

Several hundred sandhill cranes winter on the prairie and 5-10 pair nest here. Many wading birds, sometimes including large flocks of endangered wood storks, use this as feeding habitat.

OWNER: Carl L. Brice owns most of the area, including Sections 8, 9, 16, and 17. T.E. & Hazel Simmons own most of Section 7. Forty acres in the southeast corner of Section 7 belong to T.E. Jr. & Linda Simmons. Along the northern edge of this section are an 80-acre tract listed under K.W. Doke and 40 acres owned by E.D. & M. Hough.

FUTURE PROSPECTS: This area is very rapidly being subdivided into homesites and ranchettes. It will soon be so fragmented that the regular burning necessary for maintenance of the sandhills will be impossible. Many of the wildlife species of particular concern here are species which are either dependent upon fire-maintained open sandhill or sensitive to human intrusion. If development continues along its present course, within a few years the fox squirrels, kestrels, and indigo snakes are liable to be gone, followed eventually by the gopher tortoises, pine snakes, eagles, Bachman's sparrows, and others.

The prairie and its rim have been recommended to the CARL Committee for state acquisition, but its chances for state funding look relatively poor at this point.

RECOMMENDATIONS: Include the sandhills in sections 7 and 9 in any preservation proposal. They should be managed so that they can be burned every few years. Since sandhill is a community that naturally occurs in large windswept expanses, these tracts should be linked with as much similar habitat as possible.

Crossfencing and human disturbance on the prairie should be minimized to avoid disrupting wetland functions and crane behavior.

A band of natural vegetation should be kept around the prairie to serve as continuous wildlife habitat.

Linkages should be maintained between this area and Paynes Prairie through the City of Gainesville's Wacahoota property. Similar connections should join Kanapaha Prairie with Hickory Sink to the north and Barr Hammock to the southeast. These should be established as soon as possible, before routing even minimal recreational access and ecological connections between these systems becomes impractical.

INFORMATION SOURCES USED: Original 8/87 field survey notes Bob Simons submitted to KBN, kept in KBN files. FNAI. 1987 CARL proposal submitted by CARA. 7/1/87 CARA "Report on the Proposed 1,550 acre Brice Property Acquisition". Steve Nesbitt. Robin Hart. 11/12/87 field observations by Linda Duever and Jim Newman.

ADDITIONAL INFORMATION SOURCES: Maps and preliminary species lists prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. Don Morrow of Trust for Public Land. Paul Moler. Petra Wood of UF Wildlife Ecology Dept.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Gum Root Swamp

MAP #: 15

PRIORITY: Medium

KEY FEATURES: Large complex of wetlands and pinelands. Key regional ecosystem linkage.

COMMUNITY TYPES: Mesic Flatwoods, Wet Flatwoods, Scrubby Flatwoods, Sandhill, Basin Swamp

PRESERVATION ALTERNATIVES: Limited.

QUAD: Orange Heights

TOWNSHIP/RANGE/SECTION: T9S, R21E, S17, S16, S20, S21, S29, S28; T9S, R20E, S19

DIRECTIONS: Take SR26 northeast towards Melrose to junction with SR222. This is near center of site.

SIZE: 2,580 acres

DESCRIPTION: Extensive complex of swamp and flatwoods with sandhills on rise. Gum Root Swamp proper is central wetlands basin.

The wetlands have good stands of titi, which is unusual this far south.

The sandhills and scrubby flatwoods in Section 19 have coontie and gopher tortoises. There are about 100 acres each of nice sandhill and scrubby flatwoods here, as well as maybe another 100 acres of planted slash pine that could be restored to a xeric longleaf community.

There are several eagle and osprey nests in Gum Root Swamp and wood storks were recorded nesting here in 1972. Fox squirrels and canebrake rattlesnakes have been reported from this vicinity. There were red-cockaded woodpeckers in this area until very recently.

OWNER: Arthur Gladstone owns sections 20 and 21. Jenkins & Durrance own Section 29. Owens-Illinois owns 28. Mabel Barnes holds the east half of 19. Charles Piarkoson has 290 acres around the junction of sections 16, 21, and 15. Concora Corp. owns most of the rest and much of the surrounding land.

FUTURE PROSPECTS: Likely to remain in pine production and hunt club uses indefinitely with some fragmentation by rural homesites. Presently natural uplands are liable to be converted to pine plantations.

The core of Gum Root Swamp is clearly a wetland and protected under provisions applicable to such sites. The fringes of the swamp may not have this security.

RECOMMENDATIONS: Consider easements or similar legal agreements to 1)

ALACHUA COUNTY NATURAL AREA SITE RECORD

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MAP #: 15

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PRESERVATION ALTERNATIVES: Limited.

QUAD: Orange Heights

TOWNSHIP/RANGE/SECTION: T9S, R21E, S17, S16, S20, S21, S29, S28; T9S, R20E, S19

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The core of Gum Root Swamp is clearly a wetland and protected under provisions applicable to such sites. The fringes of the swamp may not have this security.

RECOMMENDATIONS: Consider easements or similar legal agreements to 1)

prevent fragmentation, 2) maximize area with native groundcover, and 3) maintain strong ecological linkages with the Hatchet Creek and Newnan's Lake systems and the wetland/pineland habitats to the north. The wetland and upland links are both important.

See that the pinelands are burned frequently. The sandhills need fire soon.

Maintain wetland hydrological patterns.

Prevent disruptive activity around important nesting areas.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI. 1973 NCFRPC Open Space and Recreation Study. 1973 NCFRPC Green Plan Inventory. John Hendrix's notes re site to be investigated for Alachua County Resource Inventory.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. Dale Crider. Steve Nesbitt. Wayne Marion. Tom Edwards (UF, Wildlife Ecology). Sources listed in FNAI files: U81GFC01, S79XXXSM. Sources listed in 1973 NCFRPC Green Plan Inventory: Jim Layne, Robert Brantley.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Millhopper Flatwoods

MAP #: 48

PRIORITY: Medium

KEY FEATURES: Nice mesic flatwoods. Important greenbelt link.

COMMUNITY TYPES: Mesic Flatwoods, Basin Swamp, Baygall.

PRESERVATION ALTERNATIVES: Limited, since regular fires are necessary.

QUAD: Gainesville West, Gainesville East

TOWNSHIP/RANGE/SECTION: T9S, R19E, S11, NE 1/4 of S14, part of SW 1/4 of S12.

DIRECTIONS: Take SR20 northeast towards Hague. Go one and a half miles past junction with SR121. Site is to the south.

SIZE: 800 acres

DESCRIPTION: Mesic flatwoods mosaic, about half natural pine and half planted. Slash pine 8-18" dbh and 60-100' tall dominates. Most of site has dense shrub layer with abundant saw palmetto. Some areas are strongly invaded by oaks.

Site includes 200 acres of swamp.

OWNER: A.D. Weiss owns Section 11 and the southwest quarter of Section 12. The northeast quarter of 12 is in multiple small ownerships.

FUTURE PROSPECTS: Slated for imminent residential development. Will grow into poor quality hammock if left alone without fire.

RECOMMENDATIONS: Preserve as greenbelt element, seeing that ecological connections with Buck Bay to east and San Felasco Hammock to west are maximized.

Needs to be burned soon and every few years thereafter.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development.

DATE: November 20, 1987.

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: South LaCrosse Forest

MAP #: 24

PRIORITY: Medium

KEY FEATURES: Second largest forest block in county. Valuable as ecological link between San Felasco Hammock and Santa Fe River.

COMMUNITY TYPES: Mesic Flatwoods, Mesic Hammock, Basin Swamp

PRESERVATION ALTERNATIVES: Yes

QUAD: Alachua

TOWNSHIP/RANGE/SECTION: T7S, R19E, most of SW 1/4 of S34 & part of SE 1/4 of S33; T8S, R19E, S3, S4, most of S9, N 1/2 of S10

DIRECTIONS: Take SR121 north to LaCrosse. Site is due south between SR121 and SR235.

SIZE: 1,700 acres

DESCRIPTION: Mostly overgrown second-growth loblolly pine/water oak forest of minimal intrinsic ecological value. Areas of nice flatwoods and swamp. Greatest value is as regional ecosystem link.

OWNER: About 20 owners, most of them with tracts of around 40 acres.

FUTURE PROSPECTS: Unknown. Outside immediate path of development.

RECOMMENDATIONS: Protect swamp and quality flatwoods.

Preserve north-south habitat band and link with Santa Fe River through Rocky Creek to northeast and to San Felasco hammock to the south.

Manage to promote succession to hammock in some areas and restoration to flatwoods in others.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Palm Point Hill

MAP #: 53

PRIORITY: Low

KEY FEATURES: Excellent habitat diversity. Old hammock. Lakeshore hill with scenic views.

COMMUNITY TYPES: Mesic Hammock, Hydric Hammock, Xeric Hammock, Scrub, Prairie/Flatwoods Lake, Seepage Stream

PRESERVATION ALTERNATIVES: No, except for active recreation along lakeshore.

QUAD: Orange Heights

TOWNSHIP/RANGE/SECTION: T10S, R21E, E 1/2 of NE 1/4 of S7 and part of W 1/4 of NW 1/4 of S8

DIRECTIONS: Take SR26 east from Gainesville to fork where it turns northeast. Take right fork and go straight ahead to Newnan's Lake. Turn right and go three quarters of a mile to the site.

SIZE: 100 acres

DESCRIPTION: Hill on west side of Newnan's Lake. Site includes lakeshore.

There is a 50-acre tract of mature mesic hammock on this site. This is a diverse climax forest with trees 1-2' dbh and 60- 100' tall. Pignut hickory is the dominant tree. Laurel oak and magnolia are also common. Prominent components of the shrub layer include dwarf thorn, coral bean, and flatwoods plum. Hogplum is abundant at its northern inland limit here.

The 10-acre hydric hammock is composed of large live oaks and mixed hardwoods with a patchy understory dominated in some places by river cane and by blue palmetto or shrubs in others. Water hickory, which grows nowhere else in Alachua County except on the Santa Fe floodplain, occurs here.

The site includes 20 acres which was once farmed and has now grown up in 90' loblolly pines with an understory of young hardwoods and a variety of groundcover species.

The 10-acre scrub on the hilltop is a dwarf forest of fetterbush and sand live oak with a dense saw palmetto understory and abundant huckleberry. It has a sparse groundcover of deermoss and bracken. There are a few gopher tortoises here.

The 10-acre xeric hammock is an ecotonal community between the scrub and the mesic hammock.

OWNER: Franklin Crates, Inc. Sixteen acres on the lakeshore tip of Palm Point is under separate ownership, A.P. on map.

FUTURE PROSPECTS: Owners intentions unknown. Looks like prime residential land.

RECOMMENDATIONS: Preserve and make available for nature study. This would make an excellent location for a nature center with short interpretive trails explaining the different habitats.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. Joan Diemer.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Fred Bear Hammock

MAP #: 42

PRIORITY: Low

KEY FEATURES: Diverse mesic hammock. Karst topography.

COMMUNITY TYPES: Mesic Hammock, Sinkhole, Sinkhole Lake, Seepage Stream

PRESERVATION ALTERNATIVES: Yes

QUAD: Arredondo

TOWNSHIP/RANGE/SECTION: T10S, R19E, S3

DIRECTIONS: Take Williston Road southwest past I-75. Turn right onto Fred Bear Road. Site is on left.

SIZE: 200 acres

DESCRIPTION: Very diverse 100-acre mesic hammock. Varied forest structure, tree sizes, and species composition. Some exceptionally large trees. Sugarberry and sweetgum dominate canopy. Many uncommon species, including swamp chestnut oak, basswood, soapberry, buckthorn, virgin's bower, dropseed, guinea-hen weed, wild plum, rouge plant, spleenwort, and grape fern.

Complex limestone topography with rock outcrops, sinkholes, sinkhole ponds, a shallow ravine, perched ponds, and seepage streams. Active sinkhole development. This area is probably valuable for aquifer recharge.

Cluster of ponds with old blackgums.

There is a 100-acre stand of loblolly pine-dominated second-growth about 30 years old. Laurel oak, sweetgum, and other hardwoods are invading this area and it is rapidly returning to hammock. Gopher tortoises inhabit the drier and more open parts of this tract. Pine snakes have been recorded just to the southwest.

OWNER: Mostly R.L. Henderson, Trustee

FUTURE PROSPECTS: Could be developed at any time. Owned by developer, zoned industrial, and located in path of development.

If left alone, entire site will eventually grow back into good hammock.

RECOMMENDATIONS: Preserve high quality hammock and karst areas and as much buffer as feasible. See that activities on remainder of site do not degrade ecological or aesthetic values of preserved portions through trampling, runoff, or other impacts.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Rocky Creek

MAP #: 22

PRIORITY: Low

KEY FEATURES: Restorable slope forest. Long north-south ravine valuable as linkage between Santa Fe and systems to the south.

COMMUNITY TYPES: Slope Forest, Seepage Stream

PRESERVATION ALTERNATIVES: No. Too narrow.

QUAD: Alachua, Montechoa

TOWNSHIP/RANGE/SECTION: T8S, R19E, parts of S1 and S2; T7S, R19E, parts of S13, S14, S23, S24, S25, S26, S35, & S36.

DIRECTIONS: Take SR 235 east from LaCrosse. Go almost two miles to stream crossing. Site runs north and south along stream corridor.

SIZE: 1,000 acres

DESCRIPTION: Narrow stream valley with patches of nice hardwood forest remaining on slopes and 100' wide strip of old-growth along creek. Most of site has been logged within last fifteen years and is now a dense tangle of shrubs and saplings.

Water oak and wax myrtle dominate the second-growth vegetation, but the ravine system still has the seed sources to regrow into a fairly diverse hammock. Other abundant trees are loblolly pine, sweetgum, sourgum, pignut hickory, and ironwood. Relatively uncommon species that still grow here include swamp chestnut oak, spruce pine, basswood, red buckeye, pink azalea, southern arrowwood, Walter viburnum, blue palmetto, stiff-cornel dogwood, climbing hydrangea, and green dragon.

This system is regarded as an important wildlife corridor. Black bears, which require heavy cover, apparently used it to migrate to and from San Felasco Hammock before it was logged.

OWNER: About 20 ownerships, mostly tracts of about 40 acres that include uplands as well as segments of the stream valley.

FUTURE PROSPECTS: Remaining stands of old-growth could be cleared, which would limit potential for restoration. Grazing is liable to degrade some areas.

Outside immediate path of development, so major construction activity unlikely in near future, but site is so narrow that even a few residences could dangerously fragment the system.

Left alone, logged areas will grow back into hammock quickly. Without management to favor slope forest composition, species like spruce pine and swamp chestnut oak may take many centuries to regain former abundance.

RECOMMENDATIONS: Protect and restore stream valley, perhaps through conservation easements or similar mechanisms.

Insure strong ecological connections with the Santa Fe River system, Buck Bay, and San Felasco Hammock. Wildlife movements are of particular concern here.

Reintroduce slope forest species to areas where they are lacking.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI. Larry Harris.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Buzzard's Roost

MAP #: 6

PRIORITY: Low

KEY FEATURES: Old hammock on limestone outcrop. Unusual fern flora. Karst features.

COMMUNITY TYPES: Mesic Hammock, Seepage Stream, Sinkhole, Floodplain Forest

PRESERVATION ALTERNATIVES: No. Too small and sensitive.

QUAD: Gainesville West

TOWNSHIP/RANGE/SECTION: T10S, R19E, S 1/2 of NW 1/4 of S6.

DIRECTIONS: Take SR26 west towards Newberry. Site is two miles past I-75 on left.

SIZE: 30 acres

DESCRIPTION: Very tall dense hardwood forest with many large trees. Dominant canopy species are sugarberry, white ash, boxelder, and Shumard oak. Poison ivy, carex, and jumpseed, an uncommon species, are abundant in the understory. The rocks are covered with ferns, including several uncommon species.

The karst features include an outcrop ridge with a shallow rock ravine, a sinkhole, and a small cave. An intermittent stream drains into the aquifer through a solution hole here.

OWNER: Howard W. Ramsey, 10417 Newberry Road, Gainesville, FL 32606

FUTURE PROSPECTS: Owner's intent unknown. Located in active development area near planned activity center.

RECOMMENDATIONS: Preserve and protect from trampling and collecting impacts by careful access control. Minimize publicity of fern flora.

Prevent hydrological alterations and pollution impacts.

Remove chinaberries and tung trees. These exotic species do not seem to be a serious ecological threat, but they do mar the native character of the hammock.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. Dan Ward. UF herbarium specimens # P526 and P527.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288,
Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Santa Fe Creek

MAP #: 17

PRIORITY: Low

KEY FEATURES: Nice remnants of floodplain forest. Potential ecological link between Mill Creek system and Santa Fe River.

COMMUNITY TYPES: Floodplain Forest, Floodplain Swamp, Seepage Stream, Mesic Hammock

PRESERVATION ALTERNATIVES: No. Too narrow.

QUAD: Worthington Springs

TOWNSHIP/RANGE/SECTION: T7S, R19E, parts of S8, S17, & S4.

DIRECTIONS: Take SR236 west from community of Santa Fe. Go half a mile and turn right onto logging road into site.

SIZE: 250 acres

DESCRIPTION: Upper part of creek valley is floodplain forest dominated by water oak, blackgum, sweetgum, and loblolly pine. This area has been cut over in patches at different times over the last fifteen years. There are a few nice stands of old growth, but most of it is a tangle of saplings and vines.

The higher ground in the center of Section 4 is a mesic hammock developed from a second-growth mixed forest with the loblolly pines largely cut out. It is mostly a dense thicket of shrubs, vines, and 4-6" dbh young trees. Water oak dominates. There are several interesting species here. They include swamp chestnut oak, indigo bush, southern arrowwood, fringetree, and pink azalea.

The Santa Fe River floodplain near the mouth of this creek is particularly nice, with some large trees that were too inconvenient to log.

We observed a yellow-billed cuckoo here. Alligator snapping turtles have been recorded near where the creek enters the river floodplain.

OWNER: Multiple. Illegible on county map. There are rumored to be tracts for sale by Brunswick Pulp and Land (sic?) Co. and Meade Corp.

FUTURE PROSPECTS: New technological and/or economic situations could spur logging of remaining large trees.

Left alone, hammocks will regrow into average quality forests.

RECOMMENDATIONS: Protect through conservation easements or similar mechanism.

Reintroduce full complement of species from Mill Creek and Santa Fe floodplain stock.

Prevent fire and minimize grazing.

Maintain strong ecological connections with Mill Creek and Santa Fe River systems.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI. Site Recommendation submitted by Bill Frankenberger.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. Dave and Candy Cantlin, P.O. Box 295, LaCrosse, FL 32658 904/462-2226 or 904/392-1951.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: North San Felasco Hammock

MAP #: 46

PRIORITY: Low

KEY FEATURES: Young mesic hammock. Valuable connection between San Felasco Hammock and ecosystems to the north.

COMMUNITY TYPES: Mesic Hammock, Sinkhole Lake, Seepage Stream

PRESERVATION ALTERNATIVES: Limited

QUAD: Alachua

TOWNSHIP/RANGE/SECTION: T8S, R19E, SE 1/4 of S37. Interpret location carefully. Sections are confusing in this area.

DIRECTIONS: Take US 441 northwest to Hague. Walk south along Cellon Creek.

SIZE: 300 acres

DESCRIPTION: This was formerly mesic hammock of the same fine quality as that in San Felasco Hammock State Preserve. It has been logged, and areas were site-prepped for a pine plantation, but it is recovering rapidly.

The site is now a dense tangle of small hardwoods, vines, and brush. Water oak, sweetgum, and pignut hickory are among the more common canopy trees and hophornbeam and devil's walkingstick are common in the subcanopy. The groundcover is mostly woodsgrass, poison ivy, carex, partridgeberry, and Virginia creeper.

The site includes two creek systems and several sinkhole ponds.

Otters, bobcats, and indigo snakes use this area and swallowtail kites nest nearby.

OWNER: Most of this is listed as J.W. Stanley on county map. At least part of this area is rumored to have been recently purchased by a conservation-minded landowner.

FUTURE PROSPECTS: If owner is not inclined to preserve, this tract is liable to be lost to development pressures.

Left alone, these woods will grow back into high quality mesic hammock. Proximity of diverse seed sources in San Felasco Hammock will enable this site to fully recover faster and with less human help than most.

RECOMMENDATIONS: Protect site, either through state purchase and addition to San Felasco Hammock or through a mechanism akin to a conservation easement that will 1) allow hammock to regrow; 2) maintain strong ecological connections with San Felasco Hammock and permit

wildlife movement to and from areas to the north; and 3) prevent activities on this site from interfering with management programs on the adjacent state preserve.

Prevent fire.

Prevent hydrological alterations and pollution impacts.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Shenks Flatwoods

MAP #: 19

PRIORITY: Low

KEY FEATURES: County's second-best flatwoods.

COMMUNITY TYPES: Mesic Flatwoods

PRESERVATION ALTERNATIVES: Limited. Needs regular burning.

QUAD: Waldo, Orange Heights

TOWNSHIP/RANGE/SECTION: T8S, R21E, E 2/3 of S36; T8S, R22E, W 1/4 of S 31; T9S, R21E, NE 1/4 of S1.

DIRECTIONS: Take SR26 east from Gainesville to SR200. Turn left and go two and a half miles north towards Shenks. Site is on the left.

SIZE: 700 acres

DESCRIPTION: Good quality longleaf pine flatwoods with most pines about 1' dbh and 80' tall. Understory is a mosaic dominated by saw palmetto in some areas and by creeping live oak and wiregrass in others.

About 100 acres in north-central part of tract was burned out in a wildfire several years ago and the remaining timber was clearcut. This area and the 25-acre pasture within it could be restored.

Large populations of wicky, creeping live oak, and runner oak.

Good deer habitat. We saw a diamondback rattlesnake on this site.

OWNER: I.E. & Elma Kallman

FUTURE PROSPECTS: Owner's intentions are unknown. Outside current path of development, but could be logged or converted to pasture.

RECOMMENDATIONS: Preserve, perhaps as hunting area.

Burn regularly. Needs fire soon.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Serenola Forest

MAP #: 26

PRIORITY: Low

KEY FEATURES: Nice mesic hammock with sinkholes.

COMMUNITY TYPES: Mesic Hammock, Sinkhole, Sinkhole Lake

PRESERVATION ALTERNATIVES: Yes

QUAD: Micanopy

TOWNSHIP/RANGE/SECTION: T10S, R19E, part of S2; T10S, R20E, part of W 1/4 of S3

DIRECTIONS: Take SR331 southwest towards Williston. Site is one and a half miles past junction with US441, just before intersection with SR121 (SW 34th Street). Most of site to the south, but there are remnant pieces to the north behind Nationwide Insurance.

SIZE: 300 acres

DESCRIPTION: This is a well-drained mesic hammock with sinkhole ponds that filter water from its small isolated watershed into the aquifer. There are scattered shallow sinks and stream beds with widely fluctuating water levels. A former national champion Florida elm grows in one of these low spots.

The oldest part of the forest is about 100 acres of medium-size hardwoods with a very open understory. Sweetgum, laurel oak, and live oak are the dominant trees. Pignut hickory is common. Other trees include bluff oak, water oak, swamp chestnut oak, loblolly pine, sugarberry, ironwood, red mulberry, persimmon, white ash, American holly, spruce pine, red cedar, winged elm, basswood, magnolia, redbay, black cherry, cabbage palm, flowering dogwood, and redbud. The most common shrubs are yaupon, stiff-cornel dogwood, and dwarf thorn. Others include sprawling buckthorn, Walter viburnum, wax myrtle, strawberry bush, coral bean, fringetree, wild olive, devil's walkingstick, wild plum, Carolina holly, parsley haw, blue palmetto, buckthorn, shining sumac, beautyberry, Virginia willow. Poison ivy, grape, and cross vine are the most common vines. Woodsgrass is the most abundant groundcover species. Partridgeberry, bedstraw, carex, elephant's foot, and Florida violet are also plentiful. Ebony spleenwort, little ebony spleenwort, green dragon, spiderwort, thelypteris, dropseed, Adam's needle, yellow passion flower, and iresine, also grow in the groundcover.

There are two successional areas totalling about 150 acres that are dominated by loblolly pines. At the south end of the site is a 30-year-old stand of pine and sweetgum growing on a formerly cleared field. At the northeast is an area that was once upland pine forest, but is growing into hammock because it has not been burned.

This site supports a variety of wildlife. There are a few gopher tortoises around the edge of the forest. Mississippi Kites are thought to nest in this area.

Scenic Road (Crown Road) goes through site.

OWNER: Most owned by R.L. Henderson

FUTURE PROSPECTS: Owned by developer, zoned commercial, and located along major road through active growth area...

Pine-dominated areas will eventually grow into nice hammock if left alone.

RECOMMENDATIONS: Preserve old part of hammock and as much of rest as is feasible.

Extend preserved tract to Paynes Prairie boundary to help compensate for isolation by roads in other directions.

Consider creating interpretive area accessible from I-75 rest area. (Coastal Plains Institute in Tallahassee has a program for developing such environmental education facilities.)

Prevent fire.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI. Steve Humphrey. Site Recommendation submitted by Arthur and Patricia Fabrick, 5520 SW 24th Terrace, Gainesville 904/372-0673. Mike Campbell.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Domino Hammock

MAP #: 56

PRIORITY: Low

KEY FEATURES: Mature hammock on limestone outcrop with many interesting karst features.

COMMUNITY TYPES: Mesic Hammock, Sinkhole, Sinkhole Lake, Aquatic Cave, Terrestrial Cave

PRESERVATION ALTERNATIVES: Limited.

QUAD: Bronson NE

TOWNSHIP/RANGE/SECTION: T11S, R18E, S33 & S34

DIRECTIONS: Take SR24 southwest to Archer. From intersection of SR24 and US41/US27/SR45 go three miles south on SR241. Turn east onto graded road and go one mile. Walk a quarter mile to south.

SIZE: 130 acres

DESCRIPTION: A mosaic of majestic mature hammock and second-growth thickets.

The mature hammock has a 100' canopy dominated by pignut hickories 1-2' dbh, red bays 1-3' dbh, and live oaks 3-6' dbh. Sweetgum, ironwood, and laurel oak are abundant in the subcanopy. Stiff-cornel dogwood, Carolina holly, beautyberry, and greenbriar are the most common species in the heavily grazed understory. Woodsgrass dominates the groundcover along with carex, poison ivy, and partridgeberry.

Parts of the hammock were not too long ago upland pine forest with a longleaf pine/southern red oak/mockernut hickory fire subclimax community. These areas have gone without fire and grown up with young hardwoods. They are probably past the point where restoration to pineland would be practical.

Interesting plant species here include swamp chestnut oak, winged elm, white ash, boxelder, basswood, rusty blackhaw, buckthorn, Carolina buckthorn, small-flowered pawpaw, climbing hydrangea, coontie, widespread maiden fern, ebony spleenwort, green dragon, indigo bush, greenfly orchid, and grey needle-leaf air plant.

Domino Hammock has about twenty caves of varied characteristics and dimensions, as well as a number of sinkholes.

Wildlife species observed on this site include red-shouldered hawk, wood duck, Carolina wren, ruby-throated hummingbird, barred owl, red-bellied woodpecker, yellow-billed cuckoo, summer tanager, white-eyed vireo, black racer, bullfrog, and leopard frog.

OWNER: Mrs. Chase D. Maddox, Archer FL 32618 owns most of the hammock. J.E. Buff owns a narrow 10-acre strip running east-west through the west-central part of Section 34.

FUTURE PROSPECTS: Continued degradation by grazing, occasional logging, and uncontrolled exploration by cavers.

Owner's plans are unknown, but value of beautiful wooded homesites could create pressure for residential development.

Japanese climbing fern has invaded the hammock. It could grow into a kudzu-like blanket and smother areas of native vegetation.

This site is liable to suffer more long-term species losses than most due to isolation from other natural areas.

RECOMMENDATIONS: Preserve through mechanism that will enable managers to stop grazing and logging and control access to karst areas.

Eliminate Japanese climbing fern, chinaberries, and armadillos to the extent feasible.

Consider reintroduction of full range of understory species typical of habitat.

Prevent fire.

INFORMATION SOURCES USED: FNAI, including reports from 5/14/83 and 8/21/83 field surveys by Bob Simons and Buford Pruitt.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. Speleological Society.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Moss Lee Lake Sandhill

MAP #: 8

PRIORITY: Low

KEY FEATURES: Restorable sandhill with appropriate groundcover and wildlife.

COMMUNITY TYPES: Sandhill

PRESERVATION ALTERNATIVES: Limited. Already small for sandhill. Needs regular fire.

QUAD: Hawthorne

TOWNSHIP/RANGE/SECTION: T11S, R22E, E 1/2 of S12.

DIRECTIONS: Take paved road southeast from Hawthorne. Go two and a half miles to site.

SIZE: 260 acres

DESCRIPTION: Sandhill planted to slash pine 15-20 years ago. Still has scattered longleaf pines and good wiregrass groundcover. Turkey oak is dominant tree. Rosemary is abundant on unburned areas. Gopher apple, dog fennel, and tephrosia are common. Other species include sandhill milkweed, reindeer moss, queen's delight, garberia, bracken, silkleaf goldenaster, puckroot, and polecat bush.

There are fox squirrels and a few gopher tortoises here. A bear was observed one mile south of this site in 1985.

OWNER: Owens-Illinois, Inc.

FUTURE PROSPECTS: May be developed or graded after slash pines are harvested. Grading would destroy the wiregrass understory, which is virtually irreplaceable. Understory could be "controlled" for forestry purposes.

On Putnam County line and thus could be affected by adjacent land uses beyond Alachua County control.

Will grow into a scrubby community and eventually into xeric hammock if not burned. Fox squirrels will die out as this happens and gopher tortoises and wildflowers will decrease in numbers.

RECOMMENDATIONS: Protect.

Remove slash pines.

Burn soon and every few years thereafter.

Coordinate planning for this area with Putnam County, ecologically linking it with other xeric communities to the extent possible.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Beech Valley

MAP #: 36

PRIORITY: Low

KEY FEATURES: Outstanding slope forest in restorable condition.

COMMUNITY TYPES: Slope Forest, Seepage Stream, Seepage Slope.

PRESERVATION ALTERNATIVES: No. Too narrow.

QUAD: Worthington Springs

TOWNSHIP/RANGE/SECTION: T7S, R18E, parts of S12 & S13

DIRECTIONS: Take CR 241 north from Alachua. Go about five and a half miles and turn right onto CR 236. Go one and a half miles to creek, where road crosses site.

SIZE: 300 acres

DESCRIPTION: Twenty years ago this was the best slope forest in peninsular Florida. It had an impressive stand of large beech trees near the southern limit of their range.

Landowner has bulldozed most of the understory and cleared areas of the forest bit by bit over the years to improve the pasture for cattle. There are still a number of large trees left.

The major species in the sparse canopy are spruce pine, swamp chestnut oak, water oak, diamondleaf oak, pignut hickory, and sweetgum. The subcanopy is hophornbeam with some flowering dogwood. The understory has been reduced to mostly beautyberry, poison ivy, and woodsgrass. Christmas fern grew here formerly, but may have been extirpated. Unusual species still present include beech, sugar maple, red buckeye, blue palmetto, cross vine, Walter's violet, and green dragon.

There are seepage areas along the sides of the valley.

OWNER: Reportedly Alvin Davis, Jr. and others. Names are illegible on county map. Looks like four or five parcels of 60+ acres each.

FUTURE PROSPECTS: Continued slow degradation by bulldozer and cows.

If protected, this would rapidly grow back into a good slope forest.

RECOMMENDATIONS: Protect and reintroduce full complement of slope forest species.

INFORMATION SOURCES USED: Original 9/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development. Bob Simon's Paradise Lost field survey submitted to FNAI 8/29/83. Dan Ward.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Northeast Lake Altho Flatwoods

MAP #: 20

PRIORITY: Low

KEY FEATURES: Large tract of nice flatwoods.

COMMUNITY TYPES: Mesic Flatwoods

PRESERVATION ALTERNATIVES: Limited. Needs regular burning.

QUAD: Waldo

TOWNSHIP/RANGE/SECTION: T8S, R22E, extreme NW corner of S17 & parts of S18 & S19.

DIRECTIONS: From Waldo, go two and a half miles southeast to Shenks. Turn left onto CR325. Go two and a half miles north. Site is on the left.

SIZE: 540 acres

DESCRIPTION: Mixed slash pine and longleaf pine flatwoods. About 240 acres has trees around 20 years old. Pines have been cut off remaining 300 acres recently, but understory is still in good condition. Understory is dense palmetto and gallberry with scattered dahoon holly and blackgum. Other common shrubs include wax myrtle, large gallberry, and red chokeberry. Sparse groundcover includes wiregrass, bracken, and cinnamon fern.

OWNER: Half a dozen large ownerships. Names illegible on county map.

FUTURE PROSPECTS: Outside path of development. Lakeshore swamp keeps this from being in demand for weekend lake houses, but remaining pines could be cut and/or land cleared for pasture.

Will grow up into mediocre hammock if not burned.

RECOMMENDATIONS: Protect and restore by replanting pines in clearcut.

Burn soon and regularly thereafter. This site has gone unburned for a long time at some point. Mechanical brush control may be necessary to cut back shrub overgrowth so that community can again be fire-maintained.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI. 1973 NCFRPC Green Plan Inventory.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development.

DATE: November 20, 1987

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288,
Gainesville, Florida 32605 904/375-8000.

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: South Melrose Flatwoods

MAP #: 14

PRIORITY: Low

KEY FEATURES: Nice xeric longleaf pine flatwoods.

COMMUNITY TYPES: Scrubby Flatwoods

PRESERVATION ALTERNATIVES: No. Small and requires regular fire.

QUAD: Melrose

TOWNSHIP/RANGE/SECTION: T9S, R22E, part of NW 1/4 of S23

DIRECTIONS: From Melrose, go west one mile on SR26. Turn south onto CR219A. Go one half mile. Site is on left.

SIZE: 60 acres

DESCRIPTION: Dry scrubby flatwoods with scattered large longleaf pines and sand live oaks. Some slash pine. Open understory with a few large shrubs and a good wiregrass groundcover. Gallberry and wicky are the most abundant shrubs. Other trees and shrubs include laurel oak, bluejack oak, turkey oak, wax myrtle, and staggerbush. Gopher apple, silkleaf goldenaster, maidencane, meadow beauty, lavender paintbrush, elephant's foot, yellow-eyed grass, and dog fennel occur in the groundcover.

OWNER: C.D. Miller

FUTURE PROSPECTS: Unknown. Could be logged or cleared.

RECOMMENDATIONS: Preserve. Burn regularly.

INFORMATION SOURCES USED: Original 8/87 field survey notes and preliminary species lists Bob Simons submitted to KBN, kept in KBN files. FNAI.

ADDITIONAL INFORMATION SOURCES: Maps prepared by KBN 11/87 and submitted to Alachua County Department of Planning and Development.

DATE: November 20, 1987.

SOURCE: KBN Engineering and Applied Sciences, Inc., P.O. Box 14288, Gainesville, Florida 32605 904/375-8000.

4.0 OTHER IMPORTANT UPLAND HABITATS

4.1 SPECIAL HABITATS

Our attention was drawn to several areas that are already too developed, disturbed, or fragmented to be viable ecological preserves, but nevertheless have important habitat values that should be maintained. We recommend that the county define boundaries for these areas and develop conservation policies to protect the significant resources within them. Each situation is different so each area will require its own set of guidelines. In some cases all that will be needed will be cooperation with organizations like the FGFWFC Nongame Program, The Nature Conservancy, and/or the local Audubon or Native Plant Society chapters to educate the neighborhood's residents to appreciate their environment and leave patches of habitat here and there in their backyards. Other areas may require stringent development regulations or acquisitions or easements to preserve blocks and strips of native vegetation.

The three Special Habitats we discuss below should be managed as conservation areas. (Letters refer to locations on Figure 3.1.)

(A) GRASSY LAKE WOODS

The area between Kanapaha Prairie and Horse Prairie has until recently been a rich mosaic of sandhills, upland pine forests, hammocks, and prairies. It is now being broken up into ranchette/estate size residential tracts, but many of the residents are leaving areas of native vegetation on their property and it may be possible to maintain some of the area's wildlife diversity.

The hammocks here are noteworthy for the abundance of basswood and the presence of coralroot orchids, dropseed, green dragon, ebony spleenwort, grape fern, and other uncommon species. Southern red oak and mockernut hickory persist where upland pine forest grew prior to fire suppression.

Kestrels nest here and indigo snakes have been reported. Bald eagles and sandhill cranes nest nearby. We observed wild turkey, barred owl, pileated

woodpecker, red-shouldered hawk, woodcock, box turtle, and broad-headed skink.

(B) MILLHOPPER SANDHILLS/ROCK CREEK

Surprisingly, the neighborhood just to the east of the Millhopper Square/Thornebrook Village shopping complex is still an important wildlife habitat. Two rare species, the short-tailed snake, a secretive burrowing reptile, and an endangered insect seem to still be thriving despite extensive residential development. Steve Gatewood of The Nature Conservancy has already met with homeowners and set up a plan for protecting the insect habitat through landowner agreements.

(C) CROSS CREEK HAMMOCK

Cross Creek's location between two lakes is the sort of fire-protected situation that typically produces fine old hammocks. We field surveyed several areas here and judged them to be good habitats with much aesthetic appeal, but not outstanding examples of natural ecological communities. The hammocks here still have the classic appearance of native Florida forest, but the signs of long-term human use that make this area so fascinating from a historical viewpoint must be viewed as disturbance when the habitats are evaluated as natural areas.

Site conditions in the Cross Creek hammocks vary from hydric through mesic to xeric, but live oaks and laurel oaks dominate practically everywhere. Magnolia is abundant on the drier sites and cabbage palm is common on the wetter ones. Saw palmetto is the most plentiful understory plant. The trees are draped with Spanish moss and laced with muscadine, Carolina jessamine, trumpet creeper, cross vine, and other vines. Other common trees include sugarberry, pignut hickory, slash pine, swamp bay, sweetgum, wild olive, and small-flowered pawpaw. American holly, devil's walkingstick, redbay, water oak, loblolly pine, blackgum, loblolly bay, and red maple are somewhat less abundant. Beautyberry and coral bean are noticeable in the understory. From a botanical viewpoint, the most interesting aspects of this hammock are the abundance of guinea-hen weed, a normally uncommon herb, and the presence of wild coffee (Psychotria sulzneri) at its northernmost inland location.

This area's greatest ecological significance lies in its extraordinary concentration of bald eagle nests.

4.2 BUFFER ZONES

Buffer zones should be defined around all existing nature preserves and the exemplary upland ecological communities listed in Section 3 and conservation strategy guidelines should be developed for each of these zones. We are frequently asked how wide a buffer zone should be. It would be far more convenient for planners if there was a generic answer to this question, but the unfortunate fact is that this is the kind of thing that must be decided on a case by case basis. Different types and dimensions of buffers are needed to protect different ecological communities in different situations. A mesic hammock, for example, might need no more buffer than a boundary line if the condos were intended to house adult professionals. However, if the habitat to be protected was a slope forest in a steep ravine and the housing complex nearby apartments for young families, the buffer would have to include a barrier sufficient to keep kids from trampling the slopes and causing erosion problems. If the community to be preserved was a scrub subject to periodic conflagrations, the housing complex would need to be far enough away that there would be no danger of the buildings catching afire. And if the habitat was a flatwoods or sandhill that needed burning every few years and the residential development was a retirement home, the separation would need to be even greater to prevent conflicts between the needs of plant communities adapted to fire and people whose lungs cannot adapt to smoke. It all depends.

With a thorough literature search and careful examination of the requirements of each ecological community, it would be possible to define meaningful zones of concern for each habitat type. Prohibiting development in these areas could still be challenged as arbitrary, but monitoring and regulating the nature and location of activity could be logically defended.

4.3 ECOLOGICAL LINKAGES

As Alachua County becomes an increasingly developed landscape, it is essential to maintain appropriate connections between ecological systems.

It is unfortunate that the indisputable biological importance of maintaining key aspects of the natural landscape arrangement has been obscured in local controversy. Hidden political and academic agendas have distorted concerns critically important to the longterm viability of our natural areas into a morass of misunderstanding referred to as "wildlife corridors." Clarifying these issues and getting on with appropriate planning for ecological linkages is essential to the success of any effort to preserve examples of Alachua County's native ecological systems. The ecological connections mentioned in this report should be viewed as a framework for Alachua County's part of a regional natural area network. The boundaries for linkage areas should be carefully defined and any lands within them not included in preserves should be managed according to the conservation strategy. Again, policies for these areas will have to be specifically adapted to the needs of each area and the ecosystems it links.

5.0. WETLANDS AND OTHER NATURAL AREAS

There are a number of valuable natural areas in Alachua County that are not evaluated in this report. The following discussions explain why these places were not included and suggests how this report should be used in conjunction with others to form a truly comprehensive data base on the county's natural areas.

5.1. WETLANDS

We were asked to devote minimal effort to inventorying wetlands since good wetland maps are already available. Therefore we did not make inquiries specifically oriented towards wetland locations or species.

Our site boundaries were adjusted to incorporate valuable wetlands wherever we found them in association with important uplands. Several of these sites are clearly among the county's most important examples of wetland ecological communities. They include, listed in no particular order, 1) Gum Root Swamp, an extensive complex of swamps and flatwoods which is critically important as a linkage between Newnan's Lake, Paynes Prairie, and Lochloosa Forest and the wetlands to the north; 2) Hatchet Creek, where there are seepage communities unlike those elsewhere in the county; 3) Lochloosa Forest, which incorporates River Styx, the county's best cypress strand and location of an important colony of endangered wood storks; 4) Sugarfoot Hammock, which includes part of Hogtown Prairie with an unusual stand of water elm; and 5) Santa Fe River, which includes outstanding tracts of floodplain swamp.

We did not prepare reports on Buck Bay or the swamps that extend north from the Gum Root/Austin Cary area, but these are very important wetland linkage areas. There are no large areas of significant natural upland habitat in these regions, but bands of natural swamp and flatwoods with native understory should be used to maintain ecological connections between these wetlands and associated ecosystems.

We accumulated notes on several other wetlands of potential significance. All of these were wading bird rookery or sandhill crane nesting sites except one. Notes from a 1980 interview with Archie Carr mention a 15-20 acre stand

of pure virgin blackgum at the west end of Paynes Prairie on Chitty's Stardust Ranch.

We have not included the rookery data here, since it changes from year to year. The county should set up a mechanism for regularly receiving and mapping rookery and crane nesting data from the Florida Game and Fresh Water Fish Commission.

5.2. AQUATIC SYSTEMS

We were told that an inventory of aquatic systems was planned, so we did not attempt to gather data on these unless they appeared in association with important uplands. Sites with obviously important aquatic ecosystems include 1) Santa Fe River; 2) Hornsby Springs; 3) Watermelon Pond; 4) Chacala Pond; 5) Hatchet Creek; 6) Mill Creek; and 7) Lochloosa Forest (Magnesia Springs). Many of our other sites incorporated aquatic communities, but we did not attempt to evaluate their importance as examples of these systems.

We suggest that eagle nest protection be considered in the evaluation of lakes, since we noted several nests on sites that could not be regarded as otherwise outstanding uplands.

5.3. GEOLOGIC FEATURES

Since we understood that a geological inventory was also planned, we made no attempt to identify features of geologic merit, although we did indicate when a site was said to be of geological significance.

We also made notes of geologic structures known to support important biological resources, such as caves with bat colonies or cave crayfish and sinkholes with unusual ferns. Thorough evaluation of the biological values of these systems should be done in conjunction with the geologic inventory.

Inventorying and monitoring geological features is complicated by the extreme sensitivity of many of these systems. Caves and sinks attract explorers whose trampling and collecting can quickly devastate a site. Those

who cherish fine examples of these systems are therefore justifiably secretive about their whereabouts. We have addressed this problem by maintaining all specific information of this nature in our confidential files. With permission from those who supplied the data to us and the assurance that a system for keeping the data secure was in place, we could release it for appropriate purposes. We have passed on all new information of this nature to the Florida Natural Areas Inventory where it will be flagged data-sensitive and keyed to site locations only by computer code.

Sites with geological features that appear to be of significance include 1) Sugarfoot Hammock; 2) Hickory Sink; 3) Hornsby Springs; and 4) Domino Hammock.

5.4. PUBLIC LANDS AND PRESERVES

Since lands already in public ownership or managed by a conservation organization are generally far less vulnerable than other natural areas, we devoted little of our time to evaluating them. We did consider lands already protected in developing assessments of the preservation status of each community, i.e., how much is already preserved and how good is it compared to what is still without protection?

San Felasco Hammock State Preserve might well have been at the top of our list were it not already protected. Other preserves that include areas we would probably have listed include Paynes Prairie State Preserve, Oleno State Park, Devil's Millhopper State Geological Site, Austin Cary Memorial Forest, and Morningside Nature Center.

Since our directive was to do an ecological evaluation, rather than a preservation plan, we did not go to the trouble of mapping all the lands already in preservation or public ownership and relating their ecological features to those on the sites we recommended. We suggest that this be done soon, since some of our sites incorporate or are associated with already secure tracts that may enhance their value.

It is important to remember that purchasing a site or designating it as a preserve does not guarantee protection of the ecological communities. Ongoing management is needed to maintain communities isolated from the supportive matrix of a natural landscape. Trespassers must be prevented from degrading the habitat. Exotic pest species must be removed. Fires must be set to compensate for those roads firemen do not allow to reach the site naturally. Managers will need funds to pay for these activities and political support to see that their needs are given appropriate attention.

5.5. SMALL SITES

Unless we had already had information indicating that they were of extraordinary value, we did not examine sites smaller than around 100 acres. The long-term viability of such sites is questionable and they are generally difficult to manage. Small tracts are also inherently less diverse; they just do not have room for as many things.

Even though areas of lesser acreage cannot compete with the sites we recommend as outstanding examples of ecological communities, many of them are still well worth preserving. If they can be linked with other natural areas or buffered adequately it may be possible to maintain their values indefinitely. Even in isolation, they would be valuable additions to neighborhood parks and urban greenspace. A site's flora and fauna would change over time, but it would still be good urban wildlife habitat. We therefore recommend that natural areas down to about an acre in size be inventoried, with priority effort going into surveying areas that serve as linkages between larger natural systems.

Size implies different things in different ecosystems. Hammocks generally do reasonably well on small tracts, since they naturally occur on relatively restricted sites. On the other hand, fire-maintained communities cannot be properly managed on less than about 40 acres.

6.0 PRIORITY RANKING OF SIGNIFICANT NATURAL AREAS

6.1 CRITERIA

Table 6.1 presents the criteria we used for ranking Alachua County's significant natural areas. The first criteria, vulnerability, was incorporated because it is the key criteria emphasized in DCA's Model Conservation Element. The next four criteria (rarity, connectedness, completeness, and manageability) came from the October 22, 1986 draft of the Alachua County Conservation Element.

After we began working with the ranking system, we felt that there was an aspect of ecological quality not addressed by the first five criteria, so we added a sixth: nature-oriented human use potential.

The completeness criteria combined both habitat diversity and species diversity within each habitat. We found it difficult to mesh these aspects of diversity into a quality concept we could score consistently. If we were to do it all over again, we might be inclined to separate these into two very important assessments into separate criteria.

H.T. Odum suggested that we incorporate a criteria evaluating the energy cost of replacing the site's ecological communities. We feel that this would be appropriate for certain types of analyses, but is not relevant to the situation here. Where people are faced with the prospect of recreating native ecosystems on strip-mined lands, for example, it is useful to evaluate the cost-benefit ratios of various scenarios. Alachua County is urbanizing so rapidly that any site not intentionally preserved will soon be committed to some other use. There will be no place to put substitute ecosystems, so there is not much use in assessing replacement costs.

6.2 SCORING

Scores were linked to the quality levels described in Table 6.2. These descriptions are intended only to convey the concept of a quality level. Few sites fit the description for a certain score level perfectly. Where part of a site rated high on a criteria and part rated low, we gave it an

Table 6.1 Site Ranking Criteria - Alachua County Uplands Inventory

1) Vulnerability

This criteria addresses the likelihood of events which might degrade or destroy the site.

2) Rarity

This criteria incorporates the rarity of each of the site's community types, the rarity of the species it provides habitat for, and the uniqueness of the site's special features, such as geological formations or champion trees. Rarity must be viewed at several scales: county, state, and global.

3) Connectedness

This criteria concerns how the site links to related elements of the landscape. Does it lie within or constitute a link between segments of an actual or potential wildlife corridor, a green space zone, or a trail system? Is it an inholding or a buffer for another natural area? How do the habitats relate to those nearby?

4) Completeness

This is basically an index of the site's ecological quality. Are the ecological communities representative examples with a full complement of species? How diverse are the habitats? The flora? The fauna? Has the site been degraded? To what degree? Are the "missing" species gone forever or is the basic integrity of the system still intact enough that there is realistic potential for reintroductions?

5) Manageability

This is an assessment of long-term viability. Is the site big enough? Would its preservation and the maintenance of its species be compatible with present and future neighboring land uses? Are degraded habitats in restorable condition? Would it be practical to do prescribed burning in fire-maintained habitats? Would there be problems with trespassers or neighbors? How expensive would it be to manage the land properly?

6) Nature-Oriented Human Use Potential

This concerns the site's inherent suitability for human activities dependent upon non-destructive use of natural features. Is it a documented research site or especially appropriate for scientific studies? Does it have a variety of habitats and transition zones through which a nature trail could be routed? Is it a beautiful place that would be aesthetically enjoyable for the public? How difficult would it be to construct and maintain trails and other facilities for passive recreation without damaging the environment?

Table 6.1 Site Ranking Criteria - Alachua County Uplands Inventory

1) Vulnerability

This criteria addresses the likelihood of events which might degrade or destroy the site.

2) Rarity

This criteria incorporates the rarity of each of the site's community types, the rarity of the species it provides habitat for, and the uniqueness of the site's special features, such as geological formations or champion trees. Rarity must be viewed at several scales: county, state, and global.

3) Connectedness

This criteria concerns how the site links to related elements of the landscape. Does it lie within or constitute a link between segments of an actual or potential wildlife corridor, a green space zone, or a trail system? Is it an inholding or a buffer for another natural area? How do the habitats relate to those nearby?

4) Completeness

This is basically an index of the site's ecological quality. Are the ecological communities representative examples with a full complement of species? How diverse are the habitats? The flora? The fauna? Has the site been degraded? To what degree? Are the "missing" species gone forever or is the basic integrity of the system still intact enough that there is realistic potential for reintroductions?

5) Manageability

This is an assessment of long-term viability. Is the site big enough? Would its preservation and the maintenance of its species be compatible with present and future neighboring land uses? Are degraded habitats in restorable condition? Would it be practical to do prescribed burning in fire-maintained habitats? Would there be problems with trespassers or neighbors? How expensive would it be to manage the land properly?

6) Nature-Oriented Human Use Potential

This concerns the site's inherent suitability for human activities dependent upon non-destructive use of natural features. Is it a documented research site or especially appropriate for scientific studies? Does it have a variety of habitats and transition zones through which a nature trail could be routed? Is it a beautiful place that would be aesthetically enjoyable for the public? How difficult would it be to construct and maintain trails and other facilities for passive recreation without damaging the environment?

Table 6.2 Scoring System for Site Priority Ranking - Alachua County
Uplands Inventory

Vulnerability

1 -- Preservation guaranteed by deed restriction, easement, or established regulatory authority.

2 -- Respected by conservation-minded landowner. Some regulatory protection. Very low development potential.

3 -- Owner has no sale or development plans. Heirs may be inclined to sell. Borderline case as to regulatory protection. Located in low-growth area. Marginal development site.

4 -- Owner likely to sell or develop, but action not imminent. No significant regulatory protection. Located in high- growth area. Good development site.

5 -- Slated for development or prime real estate currently up for sale. No significant regulatory protection.

Completeness

1 -- Poor habitat. Low species and community diversity. Seriously degraded. Too tiny and/or isolated to maintain normal flora and fauna.

2 -- Fair habitat. Moderate species and community diversity. Degraded, but restorable. Might be capable of supporting populations of relatively tolerant species.

3 -- Good habitat. Good diversity of species or communities. Slight degradation. Probably capable of maintaining populations of most typical species.

4 -- Excellent habitat. Diverse species, communities, and successional stages. Practically all appropriate species except rarities and large predators present and thriving. Excellent potential for reintroduction of most missing species.

5 -- Outstanding habitat. Diverse species, communities, and natural successional stages, including a number of rarities. Large enough to maintain long-term disturbance/succession matrix. Sizeable gene pools due to size and or links to similar habitat areas. Potential for retention or reintroduction of full normal flora and fauna, including large predators.

Rarity

1 -- Common community types in poor to average condition. Habitat types widespread throughout county. No rare animals or plants. No significant occurrences of anything ranked higher than 4 on FNAI's state scale. No significant geological features or wildlife sites. No trees of extraordinary size or age.

2 -- Typical community types still represented by extensive acreages in Alachua County. A few uncommon species, but no significant occurrences of anything ranked higher than 3 on FNAI's state scale. No major geological features or wildlife sites. No mature forests or outstanding examples of natural communities.

3 -- Good examples of natural communities. Habitat types well represented statewide, but scarce in Alachua County. A few rare species, but not many ranked 2 on FNAI's state scale and none ranked higher. Geological features or wildlife sites of moderate value. Some old growth, but no large tracts or stands of "living museum" quality.

4 -- Excellent examples of natural communities, some of them scarce. A number of rare species, but none dependent upon this site for survival. Several species FNAI ranks 1 or 2 on state scale. No significant occurrence for a globally endangered (G1) species or community. Important geological feature or wildlife site. Extensive tract of old growth. One of the best sites of its kind in Alachua County.

5 -- Rare community type. Extraordinary example of a natural community. Diverse array of superb habitats, several of them scarce. Many rare species, including a number FNAI ranks 1 or 2 on state and/or global scales. Critical habitat for a globally endangered species (G1). Unique geological feature or wildlife site. Nationally significant.

Manageability

1 -- Too small and/or degraded for maintenance or reestablishment of normal ecosystem processes, such as periodic burning or flooding. Highly vulnerable to uncontrollable external impacts. Probably beyond hope.

2 -- Location and/or extent of degradation would make management difficult and expensive. Questionable whether protection/restoration programs would be fully successful.

3 -- Could be maintained in or restored to good condition, but would require vigilant management. Location and/or historic use suggests chronic problems with trespassers and/or neighbors. Special programs such as exotic plant removal or hydrological restoration required. Difficult location for management.

4 -- Habitats in good condition, but requiring regular attention, such as prescribed burning. Effective buffering from most external impacts possible. Location and surrounding land uses reasonably convenient for management.

5 -- Low-maintenance habitat types in excellent condition. Inherently well buffered from most external impacts. Location minimizes problems with trespassers and neighbors and facilitates management access.

Connectedness

1 -- Isolated from natural habitats of significant size by a large expanse of unsuitable habitat or a virtually impenetrable barrier (from standpoint of organisms inhabiting site). No significant connecting corridors. Not situated strategically for interconnection of natural areas or trail systems.

2 -- Isolated from natural habitats of significant size by a moderate expanse of unsuitable habitat. No significant connecting corridors. Not situated strategically for interconnection of natural areas or trail systems.

3 -- Isolated from natural habitats of significant size by an expanse of marginally suitable habitat. Narrow connecting corridors. Useful situation for interconnection of natural areas or trail systems.

4 -- Not broadly joined to large areas of natural habitat, but close or connected by significant existing or potentially restorable habitat corridors. Good situation for connection of natural areas or trail systems.

5 -- Directly contiguous with large areas of natural habitat along extensive boundaries. Critical situation for interconnecting natural areas or trail systems.

Nature-Oriented Human Use Potential:

1 -- Unsuitable for passive recreation. Aesthetically unappealing. Little scientific or educational value.

2 -- Suitable for limited passive recreation, but special management might be necessary to prevent adverse impacts. Pleasant setting. Useful site for school or nature center field trips or student research.

3 -- Suitable for limited passive recreation. Attractive environment. Ecologically interesting enough to be a good outing destination for local groups like Audubon, Sierra, etc. Useful site for scientific research.

4 -- Good for several types of passive recreation. Scenic. Suitable for nature trails and/or environmental center. Valuable site for scientific research. Special enough to be a popular regional recreation destination.

5 -- Outstanding site for a variety of passive recreational uses. Excellent for nature trails and/or environmental center. Extraordinarily scenic. Important well-documented scientific study site. Features so exceptional site could attract national/international visitors.

intermediate score related to the proportion and importance of the areas of different quality.

Our scores were based on the assumption that the site boundaries were those we recommended. If smaller sites are considered, these ranking scores will not be as clear an estimate of relative quality. Excluding an important tract could drastically affect a site's score.

Some decisions were so clearly borderline that we chose to effectively expand our five-point scale into a ten-point scale by occasionally giving intermediate scores such as 2.5, 3.5, and 4.5.

It may seem that our scores tend towards the high end of the scale. This makes sense in perspective, since the sites which would have received low scores were screened out prior to the formal ranking process.

The following explanations clarify specific scoring considerations.

It is important to remember that our vulnerability scores are based on educated guesses by ecologists and not on careful analyses by planners with all the latest data on urban growth patterns and development plans.

Connectedness assumes maintenance of existing natural areas where preservation or conservation is recommended and loss of any other links.

We assessed connectedness on a regional basis. Thus, a site like Watermelon Pond that does not link very well to anything within Alachua County still gets a good connectedness score because it is an integral part of the Wacassassa ecosystem extending through Gilchrist and Levy counties.

Completeness was scored largely on the basis of diversity. Few scores are near the top of the range because most of our natural areas have already lost a number of species that were originally components of the ecosystem. We no longer have any panthers, red wolves, or red-cockaded woodpeckers and

species like bears and fox squirrels are restricted to fragments of their former ranges.

Manageability scores were reduced for fire-maintained communities near highways and airports because of the relative likelihood of future burning restrictions in those areas.

In evaluating nature-oriented human use potential, we attempted to ignore all aspects of human use not specifically tied to the ecological characteristics of the site; We did not take into account need or demand for what the site has to offer, only what it is capable of providing.

6.3 ANALYSIS

Computer runs reflecting several ranking scenarios were conducted to determine how the sites would compare according to different conservation planning philosophies.

Table 6.3.1 gives our recommended priority ranking for significant upland ecological communities. In weighting the scores to give the most accurate overall assessment of the sites relative importance, we felt it was important to give extra weight to the range of species and habitat types represented (completeness) and to the size of the tract. To do this, we grouped the sites into small (a few hundred acres or less), medium (a thousand to several thousand acres), and large (thousands of acres), then multiplied the completeness score by a size factor. For small sites we used a multiplier of one, for medium, three, for large, five.

Table 6.3.2 disregards the sites' degree of endangerment and ranks them solely on quality.

Table 6.3.3 omits consideration of both endangerment and use potential and lists the sites in order of scores on strictly ecological parameters.

Table 6.3.1. Recommended Priority Ranking for Alachua County Upland Ecosystems*

Rank	Site	Vulnerability	Rarity	Connectedness	Completeness		Manageability	Nature-Oriented		Site Total
					Criteria	Size Multiplier		Human Use Potential	Total	
<u>HIGH PRIORITY</u>										
1	Prairie Creek	3.5	4.0	5.0	5.0	x	5.0	5.0	4.5	71.0
2	Santa Fe River	3.0	4.0	5.0	4.0	x	5.0	4.0	5.0	63.0
3	Lochloosa Forest	3.0	3.5	5.0	4.0	x	5.0	4.0	3.5	60.5
4	Barr Hammock	3.5	3.0	4.0	4.0	x	5.0	4.5	4.0	59.0
5	Watermelon Pond	4.0	3.0	4.0	3.5	x	5.0	4.0	4.0	55.5
6	Hickory Sink	4.5	4.5	4.5	4.0	x	3.0	4.0	3.5	54.5
<u>MEDIUM PRIORITY</u>										
7	Sugarfoot Hammock	5.0	5.0	3.5	3.0	x	3.0	4.0	3.5	50.0
8	Chacala Pond	3.0	3.0	4.5	3.5	x	3.0	4.0	4.5	49.5
9	Mill Creek	3.0	3.0	3.0	4.0	x	3.0	4.5	4.0	47.5
10	Hatchet Creek	3.0	3.0	5.0	3.0	x	3.0	3.0	3.5	45.5
11	Parchman Pond Scrub	5.0	3.0	3.0	3.0	x	3.0	4.0	3.0	44.0
12	Hornsby Springs	2.0	3.5	4.0	4.0	x	1.0	5.0	4.0	44.0
13	Kanapaha Prairie	4.0	3.0	3.0	3.0	x	3.0	4.0	4.0	44.0
14	Gum Root Swamp	2.0	2.0	5.0	3.0	x	3.0	3.5	3.0	43.5
15	Millhopper Flatwoods	4.5	2.0	4.5	3.0	x	3.0	3.0	3.0	43.0
16	South LaCrosse Forest	2.5	2.0	4.0	3.0	x	3.0	3.5	2.0	40.0
<u>LOW PRIORITY</u>										
17	Palm Point Hill	3.5	3.0	3.0	3.5	x	1.0	4.0	4.5	38.5
18	Fred Bear Hammock	5.0	3.0	3.0	3.0	x	1.0	4.0	3.5	38.5
19	Rocky Creek	3.0	2.0	4.0	2.0	x	3.0	3.5	2.5	38.0
20	Buzzard's Roost	2.0	4.0	3.0	3.0	x	1.0	4.0	3.0	37.0
21	Santa Fe Creek	3.0	2.0	3.0	2.0	x	3.0	4.0	2.5	36.5
22	North San Felasco Hammock	3.0	2.0	4.0	3.0	x	1.0	4.0	2.0	36.0
23	Shenks Flatwoods	3.0	3.0	4.0	2.5	x	1.0	3.0	3.0	35.5
24	Serenola Forest	4.0	3.0	3.0	2.5	x	1.0	3.5	3.0	35.0
25	Domino Hammock	3.0	3.0	3.0	3.0	x	1.0	4.0	3.0	34.5
26	Moss Lee Lake Sandhill	3.0	3.5	3.0	3.0	x	1.0	3.0	2.5	33.5
27	Beech Valley	4.0	3.0	2.0	2.0	x	1.0	4.0	3.0	33.0
28	Northeast Lake Altho Flatwoods	3.0	2.0	4.0	2.0	x	1.0	3.0	2.0	32.0
29	South Melrose Flatwoods	3.0	2.0	3.0	2.0	x	1.0	3.0	2.0	29.0

* Sites high on this list should be considered critical to the County's environmental quality. Those near the bottom are suitable sites for parks or nature preserves, but need not be viewed as essential.

Table 6.3.2. Priority Ranking for Alachua County Upland Ecosystems Based on Site Quality Considerations Alone

Rank	Site	CRITERIA					Nature-Oriented		Total
		Vulnerability	Rarity	Connectedness	Completeness	Manageability	Human Use Potential		
1	Prairie Creek	3.5	4.0	5.0	5.0	5.0	4.5	23.5	
2	Santa Fe River	3.0	4.0	5.0	4.0	4.0	5.0	22.0	
3	Hornsby Springs	2.0	3.5	4.0	4.0	5.0	4.0	20.5	
4	Hickory Sink	4.5	4.5	4.5	4.0	4.0	3.5	20.5	
5	Lochloosa Forest	3.0	3.5	5.0	4.0	4.0	3.5	20.0	
6	Chacala Pond	3.0	3.0	4.5	3.5	4.0	4.5	19.5	
7	Barr Hammock	3.5	3.0	4.0	4.0	4.5	4.0	19.5	
8	Sugarfoot Hammock	5.0	5.0	3.5	3.0	4.0	3.5	19.0	
9	Watermelon Pond	4.0	3.0	4.0	3.5	4.0	4.0	18.5	
10	Mill Creek	3.0	3.0	3.0	4.0	4.5	4.0	18.5	
11	Palm Point Hill	3.5	3.0	3.0	3.5	4.0	4.5	18.0	
12	Hatchet Creek	3.0	3.0	5.0	3.0	3.0	3.5	17.5	
13	Kanapaha Prairie	4.0	3.0	3.0	3.0	4.0	4.0	17.0	
14	Buzzard's Roost	2.0	4.0	3.0	3.0	4.0	3.0	17.0	
15	Fred Bear Hammock	5.0	3.0	3.0	3.0	4.0	3.5	16.5	
16	Gun Root Swamp	2.0	2.0	5.0	3.0	3.5	3.0	16.5	
17	Parchman Pond Scrub	5.0	3.0	3.0	3.0	4.0	3.0	16.0	
18	Shenks Flatwoods	3.0	3.0	4.0	2.5	3.0	3.0	15.5	
19	Domino Hammock	3.0	3.0	2.5	3.0	4.0	3.0	15.5	
20	Millhopper Flatwoods	4.5	2.0	4.5	3.0	3.0	3.0	15.5	
21	North San Felasco Hammock	3.0	2.0	4.0	3.0	4.0	2.0	15.0	
22	Serenola Forest	4.0	3.0	3.0	2.5	3.5	3.0	15.0	
23	Moss Lee Lake Sandhill	3.0	3.5	3.0	3.0	3.0	2.5	15.0	
24	South LaCrosse Forest	2.5	2.0	4.0	3.0	3.5	2.0	14.5	
25	Beech Valley	4.0	3.0	2.0	2.0	4.0	3.0	14.0	
26	Rocky Creek	3.0	2.0	4.0	2.0	3.5	2.5	14.0	
27	Santa Fe Creek	3.0	2.0	3.0	2.0	4.0	2.5	13.5	
28	Northeast Lake Altho Flatwoods	3.0	2.0	4.0	2.0	3.0	2.0	13.0	
29	South Melrose Flatwoods	3.0	2.0	3.0	2.0	3.0	2.0	12.0	

Table 6.3.3. Priority Ranking for Alachua County Upland Ecosystems Based on Strictly Ecological Criteria

Rank	Site	CRITERIA					Nature-Oriented		Site Total
		Vulnerability	Rarity	Connectedness	Completeness	Manageability	Human Use		
							Potential		
1	Prairie Creek	3.5	4.0	5.0	5.0	5.0	4.5	19.0	
2	Hickory Sink	4.5	4.5	4.5	4.0	4.0	3.5	17.0	
3	Santa Fe River	3.0	4.0	5.0	4.0	4.0	5.0	17.0	
4	Hornsby Springs	2.0	3.5	4.0	4.0	5.0	4.0	16.5	
5	Lochloosa Forest	3.0	3.5	5.0	4.0	4.0	3.5	16.5	
6	Sugarfoot Hammock	5.0	5.0	3.5	3.0	4.0	3.5	15.5	
7	Barr Hammock	3.5	3.0	4.0	4.0	4.5	4.0	15.5	
8	Chacala Pond	3.0	3.0	4.5	3.5	4.0	4.5	15.0	
9	Mill Creek	3.0	3.0	3.0	4.0	4.5	4.0	14.5	
10	Watermelon Pond	4.0	3.0	4.0	3.5	4.0	4.0	14.5	
11	Buzzard's Roost	2.0	4.0	3.0	3.0	4.0	3.0	14.0	
12	Hatchet Creek	3.0	3.0	5.0	3.0	3.0	3.5	14.0	
13	Palm Point Hill	3.5	3.0	3.0	3.5	4.0	4.5	13.5	
14	Gum Root Swamp	2.0	2.0	5.0	3.0	3.5	3.0	13.5	
15	Fred Bear Hammock	5.0	3.0	3.0	3.0	4.0	3.5	13.0	
16	North San Felasco Hammock	3.0	2.0	4.0	3.0	4.0	2.0	13.0	
17	Parchman Pond Scrub	5.0	3.0	3.0	3.0	4.0	3.0	13.0	
18	Kanapaha Prairie	4.0	3.0	3.0	3.0	4.0	4.0	13.0	
19	Moss Lee Lake Sandhill	3.0	3.5	3.0	3.0	3.0	2.5	12.5	
20	Shenks Flatwoods	3.0	3.0	4.0	2.5	3.0	3.0	12.5	
21	South LaCrosse Forest	2.5	2.0	4.0	3.0	3.5	2.0	12.5	
22	Domino Hammock	3.0	3.0	2.5	3.0	4.0	3.0	12.5	
23	Millhopper Flatwoods	4.5	2.0	4.5	3.0	3.0	3.0	12.5	
24	Serenola Forest	4.0	3.0	3.0	2.5	3.5	3.0	12.0	
25	Rocky Creek	3.0	2.0	4.0	2.0	3.5	2.5	11.5	
26	Beech Valley	4.0	3.0	2.0	2.0	4.0	3.0	11.0	
27	Santa Fe Creek	3.0	2.0	3.0	2.0	4.0	2.5	11.0	
28	Northeast Lake Altho Flatwoods	3.0	2.0	4.0	2.0	3.0	2.0	11.0	
29	South Melrose Flatwoods	3.0	2.0	3.0	2.0	3.0	2.0	10.0	
Criteria Weight		0.0	-1.0	1.0	1.0	1.0	0.0		

Table 6.3.4 ranks the sites in order of their prospects for long-term viability. We felt the main determinants of this were connectedness, manageability, diversity, and size, so we weighted the scores to emphasize these parameters. We took as an assumption that the site was to be preserved, so short-term vulnerability had no bearing on this analysis.

Table 6.3.5 is weighted to reflect the usual concerns in establishing a greenbelt: threats to the parcels, recreational and educational potentials, management costs, and continuity.

Table 6.3.6 shows how we think The Nature Conservancy (TNC), the leading private organization involved in the purchase of nature preserves, would rank these sites. They are most concerned with protecting rare species and use a methodology that considers threats to the site and the prospects for successfully maintaining it, but they do not have a process for assessing connectedness.

Since there has been so much discussion about wildlife corridors and natural area networks, we did a final ranking run (Table 6.3.7) omitting these considerations.

Taken together, these tables constitute a sensitivity analysis which shows that no one factor is overwhelmingly important in determining the ranking order of these sites. Eliminating consideration of a criteria may change a site's place in the order by three or four slots, but the general pattern remains about the same even when the emphasis changes. The best sites stay near the top and the weakest ones stay near the bottom.

We grouped the sites into high, medium, and low priority categories in line with the breakpoints between groups of scores in Table 6.3.1. Neither the splits between these group nor the exact order of sites should be taken too seriously, however similar ranking experience suggests that a statistical analysis would show no significant difference between sites ranked within four or five slots of each other.

Table 6.3.4. Priority Ranking for Alachua County Upland Ecosystems Based on Prospects for Long-Term Maintenance of Ecological Integrity

CRITERIA											
Rank	Site	Vulnerability	Rarity	Connectedness	Completeness			Nature-Oriented		Site Total	
					Criteria Score	Size Multiplier	Manageability	Human Use Potential			
1	Prairie Creek	3.5	4.0	5.0	5.0	x	5.0	5.0	4.5	59.0	
2	Santa Fe River	3.0	4.0	5.0	4.0	x	5.0	4.0	5.0	51.0	
3	Lochloosa Forest	3.0	3.5	5.0	4.0	x	5.0	4.0	3.5	50.5	
4	Barr Hammock	3.5	3.0	4.0	4.0	x	5.0	4.5	4.0	48.5	
5	Watermelon Pond	4.0	3.0	4.0	3.5	x	5.0	4.0	4.0	44.5	
6	Hickory Sink	4.5	4.5	4.5	4.0	x	3.0	4.0	3.5	42.0	
7	Chacala Pond	3.0	3.0	4.5	3.5	x	3.0	4.0	4.5	39.0	
8	Mill Creek	3.0	3.0	3.0	4.0	x	3.0	4.5	4.0	37.5	
9	Sugarfoot Hammock	5.0	5.0	3.5	3.0	x	3.0	4.0	3.5	36.5	
10	Gum Root Swamp	2.0	2.0	5.0	3.0	x	3.0	3.5	3.0	36.5	
11	Hatchet Creek	3.0	3.0	5.0	3.0	x	3.0	3.0	3.5	36.0	
12	Hornsby Springs	2.0	3.5	4.0	4.0	x	1.0	5.0	4.0	34.5	
13	Millhopper Flatwoods	4.5	2.0	4.5	3.0	x	3.0	3.0	3.0	33.5	
14	South LaCrosse Forest	2.5	2.0	4.0	3.0	x	3.0	3.5	2.0	33.5	
15	Parchman Pond Scrub	5.0	3.0	3.0	3.0	x	3.0	4.0	3.0	33.0	
16	Kanapaha Prairie	4.0	3.0	3.0	3.0	x	3.0	4.0	4.0	33.0	
17	Rocky Creek	3.0	2.0	4.0	2.0	x	3.0	3.5	2.5	30.5	
18	North San Felasco Hammock	3.0	2.0	4.0	3.0	x	1.0	4.0	2.0	29.0	
19	Santa Fe Creek	3.0	2.0	3.0	2.0	x	3.0	4.0	2.5	29.0	
20	Buzzard's Roost	2.0	4.0	3.0	3.0	x	1.0	4.0	3.0	28.0	
21	Palm Point Hill	3.5	3.0	3.0	3.5	x	1.0	4.0	4.5	27.5	
22	Fred Bear Hammock	5.0	3.0	3.0	3.0	x	1.0	4.0	3.5	27.0	
23	Shenks Flatwoods	3.0	3.0	4.0	2.5	x	1.0	3.0	3.0	26.5	
24	Domino Hammock	3.0	3.0	2.5	3.0	x	1.0	4.0	3.0	25.5	
25	Serenola Forest	4.0	3.0	3.0	2.5	x	1.0	3.5	3.0	25.0	
26	Northeast Lake Altho Flatwoods	3.0	2.0	4.0	2.0	x	1.0	3.0	2.0	25.0	
27	Moss Lee Lake Sandhill	3.0	3.5	3.0	3.0	x	1.0	3.0	2.5	24.5	
28	Beech Valley	4.0	3.0	2.0	2.0	x	1.0	4.0	3.0	23.0	
29	South Melrose Flatwoods	3.0	2.0	3.0	2.0	x	1.0	3.0	2.0	22.0	

Table 6.3.5. Priority Ranking for Alachua County Upland Ecosystems Based on Typical Greenbelt Considerations

Rank	Site	CRITERIA							Nature-Oriented Human Use Potential	Site Total
		Vulnerability	Rarity	Connectedness	Completeness	Manageability	Human Use Potential			
1	Prairie Creek	3.5	4.0	5.0	5.0	5.0	4.5	4.5	58.0	
2	Santa Fe River	3.0	4.0	5.0	4.0	4.0	5.0	5.0	54.0	
3	Hickory Sink	4.5	4.5	4.5	4.0	4.0	3.5	3.5	53.5	
4	Sugarfoot Hammock	5.0	5.0	3.5	3.0	4.0	3.5	3.5	52.5	
5	Barr Hammock	3.5	3.0	4.0	4.0	4.5	4.0	4.0	51.0	
6	Watermelon Pond	4.0	3.0	4.0	3.5	4.0	4.0	4.0	50.5	
7	Chacala Pond	3.0	3.0	4.5	3.5	4.0	4.5	4.5	50.0	
8	Fred Bear Hammock	5.0	3.0	3.0	3.0	4.0	3.5	3.5	49.5	
9	Lochloosa Forest	3.0	3.5	5.0	4.0	4.0	3.5	3.5	49.0	
10	Palm Point Hill	3.5	3.0	3.0	3.5	4.0	4.5	4.5	48.5	
11	Hornsby Springs	2.0	3.5	4.0	4.0	5.0	4.0	4.0	48.5	
12	Kanapaha Prairie	4.0	3.0	3.0	3.0	4.0	4.0	4.0	48.0	
13	Parchman Pond Scrub	5.0	3.0	3.0	3.0	4.0	3.0	3.0	48.0	
14	Mill Creek	3.0	3.0	3.0	4.0	4.5	4.0	4.0	47.5	
15	Millhopper Flatwoods	4.5	2.0	4.5	3.0	3.0	3.0	3.0	45.5	
16	Hatchet Creek	3.0	3.0	5.0	3.0	3.0	3.5	3.5	44.5	
17	Serenola Forest	4.0	3.0	3.0	2.5	3.5	3.0	3.0	43.0	
18	Beech Valley	4.0	3.0	2.0	2.0	4.0	3.0	3.0	42.0	
19	Domino Hammock	3.0	3.0	2.5	3.0	4.0	3.0	3.0	41.0	
20	Shenks Flatwoods	3.0	3.0	4.0	2.5	3.0	3.0	3.0	40.5	
21	Gum Root Swamp	2.0	2.0	5.0	3.0	3.5	3.0	3.0	40.5	
22	North San Felasco Hammock	3.0	2.0	4.0	3.0	4.0	2.0	2.0	40.0	
23	Buzzard's Roost	2.0	4.0	3.0	3.0	4.0	3.0	3.0	40.0	
24	Rocky Creek	3.0	2.0	4.0	2.0	3.5	2.5	2.5	39.0	
25	Santa Fe Creek	3.0	2.0	3.0	2.0	4.0	2.5	2.5	38.5	
26	Moss Lee Lake Sandhill	3.0	3.5	3.0	3.0	3.0	2.5	2.5	38.0	
27	S. LaCrosse Forest	2.5	2.0	4.0	3.0	3.5	2.0	2.0	37.0	
28	Northeast Lake Altho Flatwoods	3.0	2.0	4.0	2.0	3.0	2.0	2.0	36.0	
29	South Melrose Flatwoods	3.0	2.0	3.0	2.0	3.0	2.0	2.0	34.0	

Criteria Weight

Table 6.3.6. Priority Ranking for Alachua County Upland Ecosystems Based on a Traditional Conservation Approach Similar to that of The Nature Conservancy

Rank	Site	CRITERIA							Nature-Oriented		Site Total
		Vulnerability	Rarity	Connectedness	Completeness	Manageability	Human Use				
							Potential	Total			
1	Sugarfoot Hammock	5.0	5.0	3.5	3.0	4.0	3.5	3.5	27.0		
2	Hickory Sink	4.5	4.5	4.5	4.0	4.0	3.5	3.5	26.0		
3	Prairie Creek	3.5	4.0	5.0	5.0	5.0	4.5	4.5	25.5		
4	Santa Fe River	3.0	4.0	5.0	4.0	4.0	5.0	5.0	23.0		
5	Lochloosa Forest	3.0	3.5	5.0	4.0	4.0	3.5	3.5	21.5		
6	Hornsby Springs	2.0	3.5	4.0	4.0	5.0	4.0	4.0	21.5		
7	Barr Hammock	3.5	3.0	4.0	4.0	4.5	4.0	4.0	21.0		
8	Fred Bear Hammock	5.0	3.0	3.0	3.0	4.0	3.5	3.5	21.0		
9	Parchman Pond Scrub	5.0	3.0	3.0	3.0	4.0	3.0	3.0	21.0		
10	Buzzard's Roost	2.0	4.0	3.0	3.0	4.0	3.0	3.0	21.0		
11	Mill Creek	3.0	3.0	3.0	4.0	4.5	4.0	4.0	20.5		
12	Watermelon Pond	4.0	3.0	4.0	3.5	4.0	4.0	4.0	20.5		
13	Kanapaha Prairie	4.0	3.0	3.0	3.0	4.0	4.0	4.0	20.0		
14	Palm Point Hill	3.5	3.0	3.0	3.5	4.0	4.5	4.5	20.0		
15	Chacala Pond	3.0	3.0	4.5	3.5	4.0	4.5	4.5	19.5		
16	Moss Lee Lake Sandhill	3.0	3.5	3.0	3.0	3.0	2.5	2.5	19.5		
17	Beech Valley	4.0	3.0	2.0	2.0	4.0	3.0	3.0	19.0		
18	Serenola Forest	4.0	3.0	3.0	2.5	3.5	3.0	3.0	19.0		
19	Domino Hammock	3.0	3.0	2.5	3.0	4.0	3.0	3.0	19.0		
20	Hatchet Creek	3.0	3.0	5.0	3.0	3.0	3.5	3.5	18.0		
21	Shenks Flatwoods	3.0	3.0	4.0	2.5	3.0	3.0	3.0	17.5		
22	Millhopper Flatwoods	4.5	2.0	4.5	3.0	3.0	3.0	3.0	16.5		
23	North San Felasco Hammock	3.0	2.0	4.0	3.0	4.0	2.0	2.0	16.0		
24	South LaCrosse Forest	2.5	2.0	4.0	3.0	3.5	2.0	2.0	15.0		
25	Santa Fe Creek	3.0	2.0	3.0	2.0	4.0	2.5	2.5	15.0		
26	Gun Root Swamp	2.0	2.0	5.0	3.0	3.5	3.0	3.0	14.5		
27	Rocky Creek	3.0	2.0	4.0	2.0	3.5	2.5	2.5	14.5		
28	Northeast Lake Altho Flatwoods	3.0	2.0	4.0	2.0	3.0	2.0	2.0	14.0		
29	South Melrose Flatwoods	3.0	2.0	3.0	2.0	3.0	2.0	2.0	14.0		

Table 6.3.7. Priority Ranking for Alachua County Upland Ecosystems Based on "Simberloff Scenario" Disregarding Corridors and Linkages

CRITERIA									
Rank	Site	Vulnerability	Rarity	Connectedness	Completeness	Manageability	Nature-Oriented		
							Human Use Potential	Site Total	
1	Prairie Creek	3.5	4.0	5.0	5.0	5.0	4.5	22.0	
2	Sugarfoot Hammock	5.0	5.0	3.5	3.0	4.0	3.5	20.5	
3	Hickory Sink	4.5	4.5	4.5	4.0	4.0	3.5	20.5	
4	Santa Fe River	3.0	4.0	5.0	4.0	4.0	5.0	20.0	
5	Barr Hammock	3.5	3.0	4.0	4.0	4.5	4.0	19.0	
6	Hornsby Springs	2.0	3.5	4.0	4.0	5.0	4.0	18.5	
7	Palm Point Hill	3.5	3.0	3.0	3.5	4.0	4.5	18.5	
8	Fred Bear Hammock	5.0	3.0	3.0	3.0	4.0	3.5	18.5	
9	Mill Creek	3.0	3.0	3.0	4.0	4.5	4.0	18.5	
10	Watermelon Pond	4.0	3.0	4.0	3.5	4.0	4.0	18.5	
11	Chacala Pond	3.0	3.0	4.5	3.5	4.0	4.5	18.0	
12	Lochloosa Forest	3.0	3.5	5.0	4.0	4.0	3.5	18.0	
13	Kanapaha Prairie	4.0	3.0	3.0	3.0	4.0	4.0	18.0	
14	Parchman Pond Scrub	5.0	3.0	3.0	3.0	4.0	3.0	18.0	
15	Beech Valley	4.0	3.0	2.0	2.0	4.0	3.0	16.0	
16	Domino Hammock	3.0	3.0	2.5	3.0	4.0	3.0	16.0	
17	Buzzard's Roost	2.0	4.0	3.0	3.0	4.0	3.0	16.0	
18	Serenola Forest	4.0	3.0	3.0	2.5	3.5	3.0	16.0	
19	Hatchet Creek	3.0	3.0	5.0	3.0	3.0	3.5	15.5	
20	Millhopper Flatwoods	4.5	2.0	4.5	3.0	3.0	3.0	15.5	
21	Moss Lee Lake Sandhill	3.0	3.5	3.0	3.0	3.0	2.5	15.0	
22	Shenks Flatwoods	3.0	3.0	4.0	2.5	3.0	3.0	14.5	
23	North San Felasco Hammock	3.0	2.0	4.0	3.0	4.0	2.0	14.0	
24	Gum Root Swamp	2.0	2.0	5.0	3.0	3.5	3.0	13.5	
25	Santa Fe Creek	3.0	2.0	3.0	2.0	4.0	2.5	13.5	
26	Rocky Creek	3.0	2.0	4.0	2.0	3.5	2.5	13.0	
27	South LaCrosse Forest	2.5	2.0	4.0	3.0	3.5	2.0	13.0	
28	Northeast Lake Altho Flatwoods	3.0	2.0	4.0	2.0	3.0	2.0	12.0	
29	South Melrose Flatwoods	3.0	2.0	3.0	2.0	3.0	2.0	12.0	
Criteria Weight		1.0	1.0	0.0	1.0	1.0	1.0		

We feel that these systematically developed computerized ranks very closely parallel our overall professional assessments of the sites. On "gut feeling" we are inclined to think that Mill Creek, Sugarfoot Hammock, and Hornsby Springs should have made it into the high priority grouping. And we are not completely comfortable with Barr Hammock coming out quite so high on the list.

We are pleased with the ranking system, and feel it gives an excellent evaluation of relative priorities at the preliminary overview study level. After formulation of a more detailed protection plan taking into account the many non-ecological factors involved in finalizing boundaries, the rankings could be refined by incorporating diversity and acreage data for each habitat on a site into the completeness x size score.

7.0 RESOURCE PROTECTION EVALUATION

KBN's contract stipulates that we identify which of the strategies identified in the Fourth Draft of the updated Conservation Element of the Alachua County Comprehensive Plan is most appropriate given the characteristics of the ecological communities on each of the sites inventoried in the course of this project. The two basic strategies are 1) preservation, setting the site aside as a natural area, or 2) conservation, allowing carefully planned development compatible with the site's ecological resources.

We feel that the sites we have listed as Significant Upland Ecological Communities should be managed under the preservation strategy. Those described as Special Habitats should be managed under the conservation strategy, as should buffers and linkages as those are defined. Additionally, any Significant Upland Ecological Communities which cannot be preserved should be treated as conservation areas.

To facilitate decision-making processes, we have indicated whether or not we feel there is any reasonable alternative to preservation of the entire site, ie., whether could you use part of it for active recreation or put in cluster development and still maintain the integrity of the significant ecological community.

Another task set forth in the scope of services was to evaluate the upland community classification and ranking systems to assure that they are compatible with the goals, objectives, policies, standards, and criteria identified in the most recent draft of the Alachua County Comprehensive Plan Conservation Element, the objectives of 9J-5 FAC, and the conservation policies of NCFRPC Comprehensive Regional Policy Plan (July 1, 1987).

These policy documents call for an identification, analysis and inventory of upland communities including sandhills, pine flatwoods, grassy scrub, xeric hammock, and mesic hammock (4th Draft of Alachua County Comprehensive Plan Conservation Element), natural systems (NCFRPC Comprehensive Regional Plan) and natural vegetative communities (9J-5). These policy documents also call

for the conservation and/or preservation of these ecological communities. The Alachua County Conservation Element calls for the ranking of these ecological communities on the basis of rarity, connectiveness, degree of completeness, and management potential. The completed inventory addresses all these issues and was designed to be consistent with the goals, objectives, policies, standards, and criteria of FNAI and state and regional conservation policy objectives.

8.0 ADDITIONAL RESEARCH AND PLANNING NEEDS

Throughout this report we mention areas where additional information would be valuable. Several such data gaps stand out as especially significant.

It is very important to define ecological linkages and buffer zones as soon as possible. To be most meaningful, this should be done in a regional context in cooperation with NCFRPC and/or the surrounding counties.

Boundaries also need to be defined for the three Special Habitat areas described in this report.

Small sites in the vicinity of buffers, linkages, and Special Habitats should be inventoried, preferably before boundaries for these areas are finalized.

Once buffers, linkages, and Special Habitats are indicated on maps according to the best available scientific rationales, review and regulation procedures need to be developed to address the specific protection needs of each ecosystem.

A resource inventory and management plan should be prepared for any site established as a preserve. To be successful this must involve the input of both natural area management ecologists and planners who understand the recreation needs and other human use objectives the site is to fulfil.

The results of systematic inventories of wetlands, aquatic systems, archaeological sites, and geological features (including their biological aspects) need to be integrated with the information in this report.

The county should work with local biologists and with the Florida Natural Areas Inventory to maintain a data base on animals and plants rare in Alachua County (or rare most places except in this region, and thus dependent upon our conservation efforts). Small sites suspected of supporting these species should be inventoried on a priority basis and

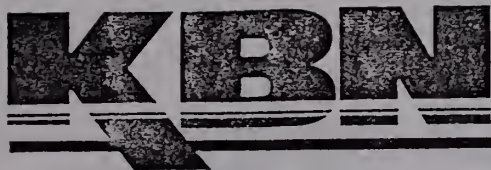
protected through landowner agreements or inclusion in neighborhood parks or utility buffers or through whatever similar means is feasible.

The sites noted in Appendix 9.3 need to be investigated. They may be as important as some of the low priority sites listed in Section 6. The Kincaid Flatwoods pond pine site looks like the highest priority of these.

We feel that prairies of the sort found in Alachua County tend to "slip through the cracks" of natural community classification based inventory and should therefore be inventoried separately. These systems are such a mosaic of both natural and anthropogenic marsh and prairie communities that they cannot be meaningfully sorted by FNAI categories at the county level.

APPENDIX 9.1

Letters and Forms Used to Solicit and Record Information



August 6, 1987

Alachua County Conservationists:

KBN is conducting a Comprehensive Inventory of Natural Ecological Communities for Alachua County and we would appreciate input as to important natural areas that should be recognized.

Since wetlands are relatively well documented, we are focusing on upland communities and wetlands that do not meet the species composition criteria for regulatory protection. Thus the basic upland categories we are looking for are sandhills, scrub (or rosemary communities that come close to it), xeric hammock, upland pine forest (on clayey soil), upland mixed forest (mesic hammock), prairie hammock (oak palm), mesic flatwoods, scrubby flatwoods, bluff, dry prairie, sinkhole, and slope forest. The major wetland types of concern are baygall, bog, wet flatwoods, hydric hammock, and floodplain forest. Even though we are not inventorying all wetlands, we would appreciate notes on "special" wetlands -- rookeries, dragonfly seeps, rare plant sites, etc.

KBN's study team (Linda Duever, Bob Simons, Jim Newman, and Reed Noss) will sift through leads from groups like yours and many other sources, field survey the most promising sites, rank them as to importance and viability, and make recommendations to the county as to appropriate measures for their protection. This information will become valuable background information for refinement of the Conservation Element of the Comprehensive Plan for the Greenspace Advisory Committee's work, and for other conservation planning efforts.

Unfortunately, this study must be conducted on an extremely tight schedule because it is funded under a Department of Community Affairs grant that stipulates that the final report must be in Tallahassee by September 30, 1987. This means that WE MUST HAVE YOUR INPUT BY LATE AUGUST! And the sooner we get it, the better the report will be.

Enclosed is a Site Recommendation Form you can copy and use to suggest sites. Keep in mind that we are inventorying sites that have high quality native habitat. Scenic pastures and borrow pits full of ducks don't count.

Thank you for your cooperation. Please call if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Linda C. Duever". The signature is fluid and elegant, with a large initial 'L' and a clear 'C' and 'D'.

Linda Conway Duever
Staff Ecologist

SITE RECOMMENDATION

I/we suggest that KBN investigate the following site and consider it for inclusion in the Comprehensive Inventory of Natural Ecological Communities for Alachua County
.....

SITE NAME: _____
COMMUNITY TYPE: _____
LOCATION: _____

TRS: _____ QUAD: _____ OWNER: _____
DIRECTIONS: _____

SIZE: _____

INFORMATION SOURCES: _____

DESCRIPTION OF SITE: _____

NOTEWORTHY SPECIES: _____

FUTURE PROSPECTS: _____

NAME: _____ DATE: _____

ADDRESS: _____ PHONE: _____

ORGANIZATION: _____

.....

ALACHUA COUNTY NATURAL AREA SITE RECORD

.....

SITENAME: _____ NUMBER: _____

COMMUNITY TYPE: _____

LOCATION: _____

TRS: _____ QUAD: _____ OWNER: _____

DIRECTIONS: _____

SIZE: _____

INFORMATION SOURCES USED:

Persons: _____

_____ Literature: _____

Files: _____ Field Survey: _____

Additional Information Sources: _____

KEY FEATURES: _____

FUTURE PROSPECTS: _____

RECOMMENDATIONS: _____

Source: KBN, 1987

NOTE: DRAFT, NOT FOR CITATION

Date: _____ Preparer Initials _____

.....

FIELD SURVEY SUMMARY

.....

GENERAL DESCRIPTION: _____

CANOPY/TREE LAYER _____

SUBCANOPY/SHRUB LAYER: _____

UNDERSTORY/GROUND COVER: _____

SOIL: _____

GEOLOGIC FEATURES: _____

HYDROLOGIC CHARACTERISTICS: _____

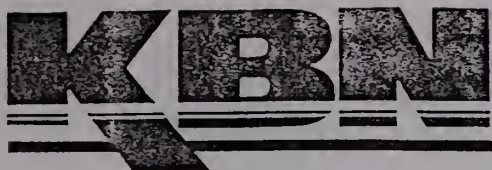
NOTEWORTHY SPECIES: _____

SUCCESSIONAL STATUS/VIABILITY: _____

EVIDENCE OF :
 logging: _____
 clearing/grading: _____
 grazing: _____
 fire: _____
 hydrologic modifications: _____
 dredging/filling: _____
 other disturbance: _____

PHOTOS: _____

Date: _____ Surveyor's Initials _____



To: Key Alachua County Natural Area Experts

From: Linda C. Duever, KBN

Date: November 1, 1987

Re: Comprehensive Inventory of Natural Ecological Communities in
Alachua County

You probably saw a copy of the enclosed information request letter last August. Most of you who responded simply expressed faith in the study team's familiarity with the area and said you felt you had little to add. We found this flattering, but worried that the lack of external input might lead to oversights. Therefore, we would like you to review the enclosed confidential draft list of the sites we have identified and tell us if we have missed anything important.

Fortunately, county officials realized that a study of this importance should not be conducted on a cramped schedule, so they requested and received a contract extension from DCA. Nevertheless, our report needs to be in to the county the middle of this month so they can review and submit it by December first. Please try to get your comments back to us by next week.

Remember that although the title of our study says "comprehensive," our instructions were to focus on uplands. And, within this project's budget, we decided to concentrate our efforts on the largest sites with the best prospects for long-term viability. We therefore reviewed recent infrared aerials and field surveyed 50+ acre sites that looked like relatively natural uplands. Interviews and literature surveys yielded notes on few significantly smaller sites. Even though small sites have not been a priority for our more thorough investigations, we would like to locate and list as many of them as possible so county planners are aware of them.

We have mentioned geological and archaeological features and wetland and aquatic communities where we have found information about occurrences associated with good examples of uplands. But, since these sites will be inventoried separately, we have not attempted to hunt for them systematically. We would like to know about any of these features if they are associated with high quality upland communities.

Our reports avoid mentioning the location of sensitive sites like little-known sinkholes and populations of organisms popular with collectors, but we are taking these into account in evaluating sites. Any relevant data you may have on such places would be greatly appreciated and handled responsibly.



November 1, 1987

Page 2

You will notice that we have tentatively identified twelve priority sites for preservation. These emerged from scoring on the basis of vulnerability, rarity, completeness, manageability, connectedness, and nature-oriented human use potential.

Please review the enclosed map and list and send us 1) any significant data that should be incorporated into our detailed reports on the twelve top-priority sites; 2) rationales and information on other sites you feel are of comparable value; and/or 3) locations and descriptions of additional places we should list.

Thanks!

Sincerely,

A handwritten signature in black ink that reads "Linda C. Duever". The script is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Linda C. Duever
Staff Ecologist

GENERAL LEGEND

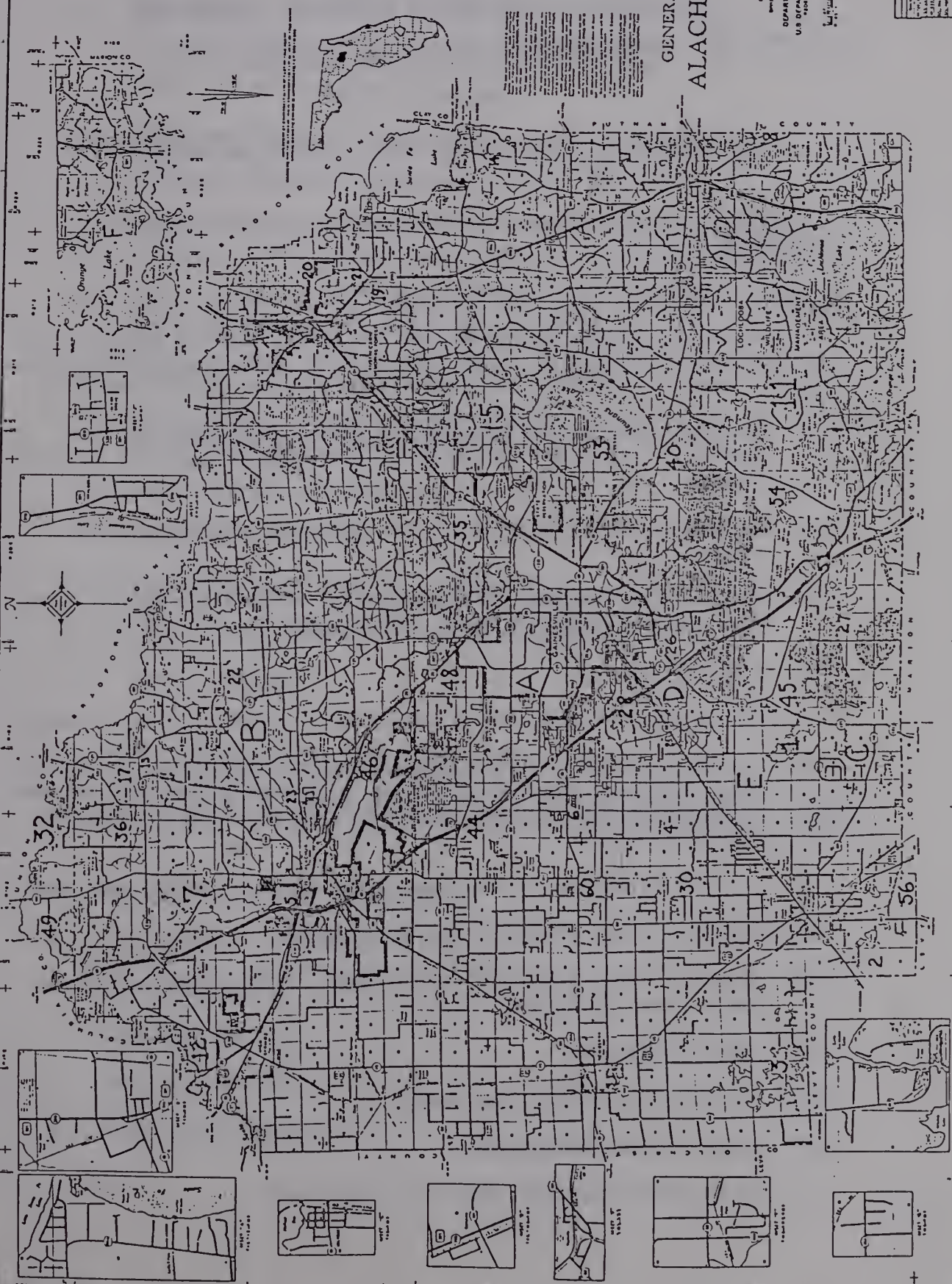
1. Major Highways	10. Railroads	19. Water	28. Towns
2. Minor Highways	11. Electric Lines	20. Marshes	29. Cemeteries
3. Unimproved Roads	12. Telephone Lines	21. Swamps	30. Churches
4. Gravel Roads	13. Gas Lines	22. Dry Lakes	31. Schools
5. Dirt Roads	14. Sewer Lines	23. Salt Pans	32. Public Buildings
6. Private Roads	15. Irrigation Canals	24. Bayou	33. Post Offices
7. Private Roads	16. Ditches	25. Lake	34. Police Stations
8. Private Roads	17. Fences	26. Bay	35. Fire Stations
9. Private Roads	18. Fences	27. Sound	36. Airports

GENERAL HIGHWAY MAP
ALACHUA COUNTY
FLORIDA

STATE ENGINEERING OFFICE
DEPARTMENT OF TRANSPORTATION
STATE OF FLORIDA
U.S. DEPARTMENT OF TRANSPORTATION
Special Highway Administration

OCTOBER, 1934

1. Major Highways	10. Railroads	19. Water	28. Towns
2. Minor Highways	11. Electric Lines	20. Marshes	29. Cemeteries
3. Unimproved Roads	12. Telephone Lines	21. Swamps	30. Churches
4. Gravel Roads	13. Gas Lines	22. Dry Lakes	31. Schools
5. Dirt Roads	14. Sewer Lines	23. Salt Pans	32. Public Buildings
6. Private Roads	15. Irrigation Canals	24. Bayou	33. Post Offices
7. Private Roads	16. Ditches	25. Lake	34. Police Stations
8. Private Roads	17. Fences	26. Bay	35. Fire Stations
9. Private Roads	18. Fences	27. Sound	36. Airports



CONFIDENTIAL PRELIMINARY DRAFT LIST OF SITES EVALUATED
FOR
ALACHUA COUNTY
COMPREHENSIVE INVENTORY OF ECOLOGICAL COMMUNITIES

KBN Engineering and Applied Sciences, Inc.

November 1, 1987

This information is not to be cited, quoted, or paraphrased.

Numbers are key to map locations and have no relation to priorities.

I. Sites Considered as Potential Preserves

KBN's report will recommend that the county place a high priority on promoting preservation of the areas marked with an asterisk. Those without asterisks will be ranked according to preservation priority.

- * 1. Kanapaha Prairie (includes CARL proposal, city land to the northeast, section 7 to the west, and other surrounding natural lands)
- * 3. Watermelon Pond (includes all natural xeric communities in vicinity)
- * 4. Hickory Sink (includes all reasonably restorable pineland and high quality caves and sinks in vicinity)
- 6. Buzzard's Roost
- * 7. Mill Creek/Townsend Branch (includes all natural forest in area)
- * 11. Lochloosa Forest (includes CARL proposal and inholdings within it, Lochloosa Creek, and portions of Franklin land to southwest, emphasizing Palatka Pond pinelands, Orange Lake Palm Hammock, and River Styx)
- * 12. Hornsby Springs (includes associated forests, scrub, and sinks)
- 15. Gum Root Swamp (includes nearby uplands)
- 17. Santa Fe Creek (includes forest along creek and area where it joins Santa Fe River)
- 19. Shenks Flatwoods
- 20. Northeast Lake Altho Flatwoods
- 21. Santa Fe Canal Flatwoods
- 22. Rocky Creek (includes forests along creek)

- 26. Serenola Forest (includes lands linking hammock with Paynes Prairie and remnants north of Williston Road, including Pickwick Sink)
- * 27. Barr Pasture (includes natural and restorable hammocks between Levy and Ledwith prairies extending east to I-75 through pond pine flatwoods and scrubby flatwoods and west to SR 121 along lower end of Levy Prairie)
- * 28. Sugarfoot Hammock (includes Split Rock and associated public-owned tracts west of I-75, Hogtown Prairie, and manageable hammock remnants east of I-75)
- * 32. Santa Fe River (includes entire Alachua County floodplain and natural or restorable upland forests along river corridor)
- * 35. Upper Hatchet Creek (includes associated sandhills, flatwoods, and bogs and extends northeast to SR 24)
- 36. Paradise Lost (Alvin Davis' beech forest)
- * 40. Prairie Creek (includes CARL proposal, scrub to northwest, and Zetrouer property to northeast)
- 46. North San Felasco Hammock
- 48. Millhopper Flatwoods
- 53. Palm Point Hill (includes lakeshore)
- * 54. Chacala Pond (Murphy-DeConna CARL proposal)
- 56. Domino Hammock

II. Sites Considered as Development Areas

KBN's report will recommend that these areas be developed under guidelines that will maintain their longterm value as wildlife habitat.

- A. Millhopper Sandhills/Rock Creek
- B. South LaCrosse Forest
- C. Grass Prairie
- D. Fred Bear Hammock
- E. Kanapaha Sandhills
- F. Cross Creek Hammock

III. Other Sites

KBN has investigated these sites, but removed them from further consideration because, although they do have important environmental values which should be considered in development planning, they do not have outstanding examples of viable upland ecological communities:

5. Mill Creek Sink
8. Moss Lee Lake Sandhills (viability dependent upon Putnam County)
14. South Melrose Flatwoods
16. West Melrose Flatwoods
13. Santa Fe Southeast Hammock
23. Hainesworth Ravines
45. Wacahoota Woods
49. Robinson Sinks
51. Tacoma Hill
30. Oak Hollow

KBN has investigated these sites, but removed them from further consideration because they are already committed to preservation:

44. Warren's Cave
60. Grant's Cave

KBN has investigated these sites, but removed them from further consideration because they are already committed to destructive development:

2. Parchman Pond Scrub

These sites were suggested to KBN, but not investigated because they seemed to represent aquatic systems or geological features and therefore fall beyond the scope of an uplands inventory:

Blues Creek

Savior's Cave

APPENDIX 9.2

Sites of Relatively Minor Importance

As Upland Habitats

9.2. SITES OF RELATIVELY MINOR IMPORTANCE AS UPLAND HABITATS

KBN investigated these sites, but removed them from further consideration because, although they do have important environmental values which should be considered in development planning, they do not have outstanding examples of viable upland ecological communities:

- Mill Creek Sink
- West Melrose Flatwoods
- Santa Fe Southeast Hammock
- Hainesworth Ravines
- Santa Fe Canal Flatwoods
- Wacahoota Woods
- Robinson Sinks
- Tacoma Hill
- Oak Hollow

These sites were suggested to KBN, but not investigated because they seemed to represent aquatic systems or geological features and therefore fall beyond the scope of an uplands inventory:

- Blues Creek
- Savior's Cave

These sites were investigated and found to be primarily geological features and already in secure ownership:

- Warren's Cave
- Grant's Cave

APPENDIX 9.3

Smaller Sites that Appear to Have
Quality Upland Ecological Communities
and Merit Investigation

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Kincaid Flatwoods NUMBER: _____

COMMUNITY TYPE: _____

LOCATION: mostly in part of SE 1/4 of Section 9

TRS: _____ QUAD: Gainesville East

DIRECTIONS: _____

SIZE: 90 acres OWNER: _____

INFORMATION SOURCES USED:

Persons: _____ Literature: _____

Files: _____ Field Survey: _____

Additional Information Sources: _____

KEY FEATURES: Mature (about to be logged) pond Pine Forest

FUTURE PROSPECTS: _____

RECOMMENDATIONS: _____

→ Bounded on N. by SE 13th Ave
 " " " S. by Kincaid Rd (SE 22 Ave)
 " " " W. by SR 331
 " " " E by SE 15th Street

FIELD SURVEY SUMMARY

GENERAL DESCRIPTION: 80% mature (60 to 100 ft. tall by 1 to 2 foot diameter pond pine. Some live oak hammock in SE corner, some baygall/swamp.

CANOPY/TREE LAYER Pond pine with some other pines, some oak, blackgum and bay.

SUBCANOPY/SHRUB LAYER: *Seren-a repens*, *Vitis rotundifolia*, some *Ilex glabra*, *Smilax* sp.

UNDERSTORY/GROUND COVER: - sparse ~~grass~~

SOIL: _____

GEOLOGIC FEATURES: _____

HYDROLOGIC CHARACTERISTICS: _____

NOTEWORTHY SPECIES: Best stand of large pond pine in county

SUCCESSIONAL STATUS/VIABILITY: _____

EVIDENCE OF :

logging: _____

clearing/grading: _____

grazing: _____

fire: _____

hydrologic modifications: _____

dredging/filling: _____

other disturbance: _____

PHOTOS: _____

Date: Nov/87

Surveyor's Initials

RWS

Kincaid Flatwoods

List species observed and mark appropriate column. If specimens are collected indicate collection #. Indicate if identification is positive or tentative.

[illegible]

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: High Springs West NUMBER: _____

COMMUNITY TYPE: _____

LOCATION: Part of middle and eastern section 32

TRS: T7S R17E QUAD: High Springs SW

DIRECTIONS: _____

SIZE: ~ 100 acres OWNER: _____

INFORMATION SOURCES USED:

Persons: _____

Literature: _____

Files: _____

Field Survey: _____

Additional Information Sources: _____

KEY FEATURES: Hardwood Forest

FUTURE PROSPECTS: _____

RECOMMENDATIONS: Needs looking at!

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITE NAME: Keene Sink NUMBER: _____
COMMUNITY TYPE: Wetland Hammock, Floodplain Forest, Floodplain Swamp
LOCATION: Partly in SW 1/4 of Sect 6 - & partly in the top corner of the odd
sect. 37, T7S, R18E
TRS: _____ QUAD: Mikesville
DIRECTIONS: _____

SIZE: 100+ acres OWNER: J.R. Keene Rt. 2 Box 320
INFORMATION SOURCES USED: High Springs FL 3264
Persons: _____ Literature: _____
Files: _____ Field Survey: _____
Additional Information Sources: _____

KEY FEATURES: Deep water sink surrounded by bald cypress
swamp in turn surrounded by mature hardwood forest

FUTURE PROSPECTS: _____

RECOMMENDATIONS: _____

FIELD SURVEY SUMMARY

GENERAL DESCRIPTION: 3 acre deep water sink hole pond
Mature cypress forest and hardwood forest

CANOPY/TREE LAYER

SUBCANOPY/SHRUB LAYER:

UNDERSTORY/GROUND COVER:

SOIL:

GEOLOGIC FEATURES:

HYDROLOGIC CHARACTERISTICS:

NOTEWORTHY SPECIES:

SUCCESSIONAL STATUS/VIABILITY:

EVIDENCE OF :

logging:

clearing/grading:

grazing:

fire:

hydrologic modifications:

dredging/filling:

other disturbance:

PHOTOS:

Date:

Nov / 87

Surveyor's Initials

RWS

ALACHUA COUNTY NATURAL AREA SITE RECORD

SITENAME: Tuliptree Grove NUMBER: _____
COMMUNITY TYPE: _____
LOCATION: N. of 8th Ave.
TRS: _____ QUAD: _____ OWNER: _____
DIRECTIONS: _____
SIZE: _____

INFORMATION SOURCES USED:

Persons: 7. Notes from Dan Ward 5/9/85 in John Hendrix's files.
Literature: _____

Files: _____ Field Survey: _____
Additional Information Sources: _____

KEY FEATURES: disjunct tuliptree population (southernmost?)

FUTURE PROSPECTS: _____

RECOMMENDATIONS: Ask Dan about it when he gets back from Australia.

Source: KBN, 1987

NOTE: DRAFT, NOT FOR CITATION

Date: 9/14/87 Preparer Initials LCD

APPENDIX 9.4

Quad Sheets with Preliminary Boundary Maps

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1987

Plan
Loc

NON-CIRCUL

